Polycom RSS 2000

User's Guide

Version 1.0

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Preface

This User's Guide provides information on installation and system operations to users and system administrators of the Polycom RSS 2000 system.

RSS 2000 is a network server that enables users to easily record, stream and archive multimedia content on demand. It supports recording, archiving, streaming and H323 playback of high definition video content, and is an integrated part of the end-to-end Polycom video communications product portfolio.

The Polycom RSS features integration with Polycom VSX video conferencing systems and Polycom MGC unified conferencing bridges enables users to start, stop pause and many other options recording and H.323 Playback on-demand using familiar DTMF commands while recording over IP. Management, monitoring and customization options are easily accessible using standard Polycom MGC software management tools or a web-based interface. Users can record high-quality multimedia conferences (up to H.264 30 frames per second) with synchronized voice, video and content (point-to-point and multipoint), as well as stream live or archived content to audiences worldwide through the Internet. The server can store up to 600 hours of recorded content, which is then accessible over the Internet using common media players software, including: Microsoft Office Windows Media Player and RealPlayer .

The Polycom RSS features extensive security features to protect content. The server features password protected management, the ability to set recording and viewing rights, and the ability to identify terminals or web users.

Equipment Installation and Preliminary Configuration

Preparation before Installation

For safe installation and operation of the RSS 2000, make sure that your working environment meets the RSS 2000 server requirements: mains voltage, mains power, temperature and humidity, etc.

In order to guarantee a normal use of the server, it is recommended to use UPS as the power supply. For more details, refer to the ReadiManager Getting Started Guide.

Equipment Installation

For a detailed description of the hardware installation procedure, refer to the ReadiManager Getting Started Guide.

Equipment Connection

The RSS 2000 server uses the 10/100Mbps Network Cable as its communication medium. On the backboard of the server, two self-adaptive 10M/100M Ethernet connectors are provided.

LAN1: It is for web connection and used for equipment control and stream reception and transfer.

LAN2: Not in use currently.

Preliminary Configuration of the Equipment

Preliminary configuration can be made on RSS 2000 by using the series port, and its content includes: checking and setting the IP address and resetting the login password.

Connecting the Cable

Before using the series port to perform the preliminary configuration, the COM port of your computer must be connected with the Console port on the backboard of the RSS system through the series communication cable. If the COM port of your computer is a 25Pin port, you may have to purchase separately a joint of 25Pin to 9Pin for connection. If your computer has 1 or 2 COM ports, you may connect to either ports.

Initiating the Endpoint Emulation Software

In general, operational systems of various types are equipped with endpoint emulation software. For example, in Windows operational system, the HyperTerminal is included, which may be used as an endpoint emulation program. For information on how to initiate the endpoint emulation software, please refer to the Operation Guidelines for the operational system you are using. If no endpoint emulation software is included in your operational system, please contact your system administrator to find out how to install such software. On the Windows operating systems, generally, you may initiate the HyperTerminal in the process of Start>Programs>Accessories>Communications>HyperTerminal.

Configuration Parameters for the Port

After initiating the endpoint emulation software, emulation parameters have to be set.

Details are as follows:

- Port: COM1 (determined by the port in use)
- Speed: 9600 baud rate
- Data bits: 8
- parity bit: N/A
- Stop bit: 1

Additionally, depending on the actual emulation software, it may be necessary to set some other parameters.

- Local entering will not echo
- Settings for DEL and Backspace keys
- Carriage return/Line feed
- The endpoint emulation types are Self-Motion and ANSI

Make Settings by Using Commands

When the above-mentioned configurations have been completed and the endpoint emulation software successfully initiated, type Enter to get into the login interface.

Login

When the above-mentioned configurations have been completed and the endpoint emulation software successfully initiated, type Enter to get into the login interface.

Various information of the software and the prompt for entering login password are displayed on the login interface. Please enter your login password and then click Enter.

CAUTION: **1. The default login password set at the time of shipment is 'polycom'.**

2. If you forget your login password, you may first connect the endpoint emulation software with the RSS 2000, and then reset the RSS 2000 equipment. Once you see "....." on the monitor of the endpoint simulation software, press Ctrl+C and login on to the equipment (no password needed). At this time, relevant command of changing the login password my help you reset your password.

If you enter a wrong password, the system may require you to login again.

If you enter the right password, you will enter the operational interface of the software:

```
************************************************************
**                                                        **
**      Welcome to Polycom RSS 2000 Server                **
**                                                        **
**     Polycom RSS 2000 System Information                **
**                                                        **
**  Polycom RSS 2000 Version 1.0.0.006 Build:Jun 19 2006   **
**                                                        **
**                                                        **
**                                                        **
************************************************************
------------------------------------------------------------
 Physical Memory:1039836 KB    Intel(R) Pentium(R) 4 CPU 2.80GHz


 LAN1:   IP: 172.21.99.43  MASK: 255.255.224.0
        GW: 172.21.99.1  MAC:  00:90:FB:06:A0:80


 RSS 2000 Service is RUNNING


#
```

Type ? or Help, to get the help information offered by the system.

Help Information

After you log in to the system, in the prompt line (#), type **?** or **Help**.

```
# ?
Available comands:
 show                    Show system information.
 reset password           Reset the administrator's password to default.
 set lan1 static <ip address> netmask <ip mask> [gw <gateway address>]
                         Config LAN1 IP address.
 reboot                   Restart system.
 help or ?                Show this message.
 quit                    Logout.
#
```

Exit

To log off the system, in the prompt line (#), type **quit** and then press Enter.

```
# quit
User logout ok.
Please input your password:
```

System Reset

To reboot the system, in the prompt line (#), type **Reboot** and press Enter. the system will reset automatically.

```
# reboot
System is restarting now.... # ..............................................
```

Change Login Password

You can reset your password to the default password (Polycom). To reset password, in the prompt line (#), type **Reset Password** and press Enter.

```
# reset password

Password has been successfully reset.

Available commands:
 show                    Show system information.
 reset password           Reset the administrator's password to default.
 set lan1 static <ip address> netmask <ip mask> [gw <gateway address>]
                         Config LAN1 IP address.
 reboot                   Restart system.
 help or ?                Show this message.
 quit                    Logout.
#
```

System Information Display

To display the system information, in the prompt line (#), type **Show** and press Enter.

```
# show
------------------------------------------------------------

 Physical Memory:1039836 KB    Intel(R) Pentium(R) 4 CPU 2.80GHz

 LAN1:   IP: 172.21.99.43  MASK: 255.255.224.0
        GW: 172.21.99.1  MAC:  00:90:FB:06:A0:80


 RSS 2000 Service is RUNNING

------------------------------------------------------------
```

LAN1 IP Address Setting

To set the static IP address information of the system, in the prompt line (#), type **Set Lan1 Static**, IP address, netmask, and default gateway and press Enter.

```
#  set lan1 static 192.168.68.1 netmask 255.255.0.0

Set ip ok.

You should reboot computer to make it in effect.
```

Set the IP address of the first network interface card (NIC) as 192.168.68.1, netmask 255.255.0.0. This will be used in the equipment and network to control the platform's communications.

Conference Recording

The RSS 2000 supports the recording of H.323 endpoint (or MCU) conference in the mode of call connection, i.e. to connect the RSS 2000 through the call made by the endpoint (or MCU), then the RSS will decode and save the code streams of the endpoint (or MCU). Two formats will be saved: original code streams and WMV format. Of them, the original code streams shall be saved directly without decoding, while the files of WMV format shall be saved after decoding.

Two recording modes are supported by the RSS: single point recording and point to point recording.

The single point recording is to call the RSS 2000 for connection directly from the endpoint or MCU. While in communication, the RSS 2000 will save the audio and video information of the endpoint and play back to the endpoint or MCU. When performing the single point recording, the RSS 2000 supports the recording over the H.261/H.263/H.264 video protocols and the G.711A/G.711U/G.722/G.728 audio protocols. At the same time, it can record the PC screen of the second channel of the H.239 dual video at a speed of 1 frame per second. When recording only in the mode of single point recording, the RSS 2000 can at most support two single point recordings performed concurrently and allow only one of them to enable dual video recording.

CAUTION: **1. When single point recording is performed, point to point recording shall no longer be allowed.**

2. The RSS 2000 does not support dual video recordings of other protocols other than the H.239 dual video recording.

The RSS 2000 can be controlled through the web and the endpoint remote control. When using the remote control, the RSS 2000 supports control over the menu through FECC or DTMF. If the endpoint supports FECC, various items on the menu can be performed by controlling the remote camera. When the endpoint supports DTMF, the menu interface can be performed through it. Definitions on the operational keys of FECC and DTMF are shown in Table 2-1.

Table 2-1 Definitions of the Operational Keys of FECC and DTMF

FECC	DTMF	Description
←	4	Back to the higher-level menu. Exit the menu and display the image (when there is no higher-level menu). Call out the menu (with the image displaying).
→	6	Enter the lower-level menu. Confirm the selection. Call out the menu (with the image displaying).
↑	2	With the menu displaying, select upwards (can be cyclic). Call out the menu (with the image displaying).
↓	8	With the menu displaying, select downwards (can be cyclic). Call out the menu (with the image displaying).

Using the Endpoint to Perform Single Point Recording

Start Recording

When the RSS 2000 is called by the endpoint to establish H.323 connection, the main menu screen sent by the RSS 2000 will be seen on the endpoint, as it is shown in Figure 2-1. The speed of the menu screen is 128 kbps and 3 frames per second.

Figure 2-1 the Main menu

In the screen shown in Figure 2-1, select Archive Recording and make sure to enter the Start Recording menu through the remote control as shown in Figure 2-2. You are then asked to choose if to perform dual video recording or to set the PIN code for the recorded archive.

POLYCOM | RSS 2000
Record Video
To start recording press RIGHT arrow or 6
To go back to main menu, press LEFT arrow or 4
Start Recording
Record my PC content : No
Set PIN code for this recording
Status: Idle
df
00:02:59

Figure 2-2 Start Recording

Dual Video Recording

Select Yes or No at Dual Video Recording, so as to confirm if to record dual video at this time. When such function is selected, the RSS 2000 will record the PC screens sent by the endpoint and save them in a file with the audio/video streams. When using the web to play back the file, the Media player will open two windows automatically. The smaller window in action is used to display the video images of the main channel video, while the larger one is to show the PC screens of the second channel. If dual video recording is selected but not sent in the process of communication, two windows will be popped up at the web VOD of the generated files. However, the windows of the dual video PC screens will always be black.

Note: **1. When dual video recording is performed, the H.239 dual video function shall be enabled simultaneously at the endpoint.**

2. 1024*768 resolution of PC is recommended during dual video recording.

Set PIN Code

When Set PIN Code for This Recording is selected, you will enter the menu interface for setting Pin code as shown in Figure 2-3.

POLYCOM | RSS 2000
Press * to clear input. Press # when finished
Set PIN code for new recording
Please enter the PIN:
Status: Input PIN
df
00:04:10

Figure 2-3 Set Pin Code

You will hear a voice prompting you to enter a PIN code and end it with a #. To set the PIN code, you will have to use the DTMF to enter numbers that shall not exceed 8 digits. These numbers will be shown in the menu page. Once complete, press #, and the menu will automatically jump to the Archive Recording Menu. A sign indicating that the PIN code has been set will appear after Start Recording, as shown in Figure 2-4.

POLYCOM | RSS 2000
Record Video
To start recording press RIGHT arrow or 6
To go back to main menu, press LEFT arrow or 4
Start Recording (PIN.********)
Record my PC content : No
Set PIN code for this recording
Status: Idle
df
00:06:29

Figure 2-4 Set the PIN code and return to Start Recording menu

After setting whether to perform dual video recording and setting the PIN code, select Start Recording to start archive recording. At this time, you will enter the recording menu, hear a voice message "Conference recording starts", and see voice volume bars displaying at the bottom of the interface. Then press the arrow key "←" and the endpoint will see the screens of its own. If dual video is sent, contents of the main channel video and the dual video will be echoed.

Fast Recording

Setting the property of the endpoint as Fast Recording at the web client will make it unnecessary to select at the menu interface at the time when the endpoint is calling the RSS 2000. Single point recording can then start directly. For information on setting the property of the endpoint as Fast Recording, refer to the relevant content of Web Management.

Pause Recording

In the recording process, it is possible to pause the recording through the endpoint remote control. When watching the cyclic screens, you may return to the menu of the recorded archives by pressing any arrow key. Selecting Pause Recording will stop the recording process. Meanwhile, the option of Pause Recording now changes to Continue Recording and a voice message "Conference recording paused" given by the system will be heard, as shown in Figure 2-5. At this time, the streams sent to the RSS 2000 by the endpoint will no longer be saved.

Figure 2-5 Pause Recording

Continue Recording

Selecting **Continue Recording** through the endpoint remote control can resume the paused recording. At this time, you will hear a voice message "Conference recording continues" and see the option changed to *Pause Recording* again, as shown in Figure 2-6. In this case, when you play the generated archive after the recording is completed, you will find that the part of archive played after the pause and before the resumption has not been recorded.

Figure 2-6 Continue Recording

Delete Recording

Selecting **Delete Recording** through the endpoint remote control can stop the recording and delete all saved streams. The menu will return to *Start Recording*, as shown in Figure 2-7.

Figure 2-7 Delete Recording

Stop Recording

Selecting **Stop Recording** through the endpoint remote control can stop the recording and generate archives, as shown in Figure 2-8. If played back through the endpoint, the generated archives can only be seen as files saved as raw code streams. If called in the web VOD, the generated WMV files will be seen.

Figure 2-8 Stop Recording

Name Recorded Files

As to files generated by single point recording, their naming principle shall be: H.323 alias of the endpoint + recording time. For example, an endpoint's H.323 with an alias of VSX6000 was recorded at 5:49:36 on April 19, 2006, so its file name shall be "VSX6000_APR19_2006_054936", as shown in Figure 2-9 .

Figure 2-9 Name Recorded Files

Note:

1. **There should be at least 500M on the disk. Otherwise current recording will be stopped and archives generated. (This also applies to point to point recording).**
2. **When there is less than 500M on the disk, a voice message will inform you that the disk space is not enough for starting conference recording. (This applies also to point to point recording)**
3. **If there is no audio/video data received in 30 consecutive seconds in the recording process, the RSS 2000 will hang up the connection. (This applies also to point to point recording)**

Use MCU for Single Point Recording

When an MCU is used for single point recording, the RSS 2000 needs to be added in the connection established from the MCU, and the information recorded at the RSS 2000 will be a video/audio stream forwarded by the MCU. Currently, the RSS 2000 can support MCUs including the Polycom MGC series and DST 4000 series.

It is still possible to use a remote control to control the RSS 2000 when an MCU is used for single point recording. When FECC or DTMF is used for control, the MCU must be able to support FECC and DTMF commands transmission.

To use an MCU for single point recording, get the RSS 2000 connected to the MCU, and then operate the MCU to enable an endpoint in the conference to receive video/audio from the RSS 2000 and to ensure that FECC and DTMF commands from the endpoint can be forwarded to the RSS 2000 through the MCU, when a main menu will appear on the RSS 2000. The menu operations for MCU single point recording are not described here since they are identical with those for endpoint single point recording. However, please note that H.239 must be supported and enabled on the MCU before the MCU can be used for dual video recording.

For MCU single point recording, the generated file is named in the format of conference_name + start_time, where the conference_name is set on the MCU. For example, if a conference on the MCU that is named as RECORDING_TEST and starts recording at 8:43:47 on April 19, 2006, the file generated will have a name of RECORDING_TEST_APR19_2006_084347.

Point to Point Recording

To make a point to point recording, you should firstly use the web client on the RSS 2000 to initiate a point to point conference and set the conference parameters. The number of conferences is 2 by default and can be set up to 4. Then you call from two endpoints or MCUs into the conference. When only a single endpoint enters the conference and starts recording, you can see a single-window screen at the endpoint showing the loopback image of that endpoint itself. And when both the endpoints enter the conference, you can see a two-window screen at either of the endpoints, which is programmed by the RSS 2000, with each window showing the image of one of the two endpoints.

Start Recording through Menu Interface

Call from an endpoint to connect to the RSS 2000 and enter the main menu, and use the controller to select Point to point Recording, and then you will see the current conference established on the RSS 2000, as shown in Figure 2-10.

POLYCOM | RSS 2000
Pnint tn Pnint Call
To join a Point to Point call press RIGHT arrow or 6
To go back to main menu, press LEFT arrow or 4
264/384 0/2 (H.264.384K)
ÖÐÏÄ239Ä¼ÖÆ 0/2 (H.264:384K)
264 768 0/2 (H.264:768K)
264 768 239 0/2 (H.264:768K)
Status: Idle
df
00:02:34

Figure 2-10 Conference Room

In the *Conference Room* menu, you can see all names of ongoing conferences, the number of current participants in each conference, and the bandwidth and video protocol used for each conference. Select the conference you want to enter, and verify that you see a single-window screen showing the loopback image of your endpoint when it is the only endpoint that enters the conference. Otherwise you will see a two-window screen programmed by the RSS 2000, with each window showing the image of one of two endpoints if the other endpoint has connected to the conference before your endpoint. You can move to the Start Recording and Leave the Conference options by pressing any arrow keys at any endpoint, as shown in Figure 2-11.

POLYCOM | RSS 2000
Point to Point Call
To start Point to Point recording press RIGHT arrow or 6
To hide this menu press LEFT arrow or 4
Start Recording
Leave the conference
Status: Meeting Room
df
00:03:25

Figure 2-11 Start Recording Menu

Note: 1. **To avoid operation conflicts, only one endpoint is allowed to invoke the operation menu when both endpoints are in the conference.**

RSS 2000 allows only one point to point recording at a time, and a single point recording is not available when a point to point recording is going on.

If an endpoint that does not provide the video capability as defined for a point to point conference, it cannot select the Start Recording option.

Select S**tart Recording** from the *Conference Room* menu, and verify that the recording menu is entered with a voice prompting "The conference Recording is started", and a volume slider appears at the bottom of the window. By pressing the arrow key "←", you will see a loopback image screen or two-window screen at you endpoint, and also the main channel and duel video if a dual video is forwarded.

Start Recording by Calling a GK Number

You can use a GK to make a call for the conference defined on the RSS200 by taking the follows steps:

1. Register the endpoint and RSS 2000 to GK, and ensure that a connection can be established through a GK call.

2. Call into the conference by using the endpoint controller to enter 'the E.164 number with which the RSS 2000 is registered to GK + the conference room number defined on the RSS 2000'.
3. After entering the conference, select **Start Recording** to start the point to point recording.
4. Call another endpoint into the conference by using the endpoint controller to enter 'the E.164 number with which the RSS 2000 is registered to GK + the conference room number defined on the RSS 2000 + the E.164 number with which the other endpoint is registered to GK'.
5. After entering the conference, select Start Recording to start the point to point recording.

Pause Recording

You can use the endpoint controller to control and pause a recording. You can press any arrow key to go back to the *Record Archive* menu from the loopback image screen or two-window screen. You can select **Pause Recording** to pause the current recording process, when the *Pause Recording* option turns into *Continue Recording* and the system provides a voice prompt of 'The conference recording is paused', as shown in Figure 2-12. In this case, the code stream sent to the RSS 2000 by the endpoint is not saved.

Figure 2-12 Pause Recording

Continue Recording

You can resume the paused recording by using the endpoint controller to select **Continue Recording**. A voice confirmation that the recording is resumed is played 'The conference recording is resumed' and the Continue Recording option in the menu turns back into *Pause Recording*, as shown in Figure 2-13 (Continue Recording).

Figure 2-13 Continue Recording

In this case, when you play the generated archive after the recording is completed, you will find that the part of archive played after the pause and before the resumption has not been recorded.

Stop Recording

Use the endpoint controller to select **Stop Recording** to end the current recording process and generate an archive, as shown in Figure 2-14. When the generated file is played at an endpoint, you can only see the file saved as a raw code stream. However, when it is played by request from a web page, you will find that it is saved as a WMV file.

Figure 2-14 Stop Recording

Delete Recording

Use the endpoint controller to select **Delete Recording**. The current recording process will be stopped, all saved code streams will be deleted, and the menu will go back to the *Conference Room* menu, as shown in Figure 2-15.

Figure 2-15 Delete Recording

Leave the Conference

Select **Leave the Conference** from the *Conference Room* menu. The endpoint will exit the current point to point conference recording and switch back to the main menu, as shown in Figure 2-16.

POLYCOM | RSS 2000
Point to Point Call
To leave the Point to Point call press RIGHT arrow or 6
To hide this menu press LEFT arrow or 4
Start Recording
Leave the conference
Status: Meeting Room
df
00:04:10

Figure 2-16 Leave the Conference

Name Recorded Files

For point to point recording, the generated file is named in the format of conference_name + start_time, where the conference_name is set in the point to point parameters. For example, in a point to point conference that is named as Testroom and starts recording at 08:43:53 on April 19, 2006, the generated filename is Testroom _APR19_2006_084353, as shown in Figure 2-17.

Figure 2-17 Name Recorded Files

Play Recording

The recorded archive is saved in a raw code stream file and a WMV file. The raw code stream file can be played by calling the RSS 2000 from an endpoint. During playing, the RSS 2000 supports up to 10 H.323 connections for recording if there is no archive recording is in process, or 5 H.323 connections (including H.323 connections for recording tasks) if there is a archive recording going on.

Note: **The recording operation is not available when 5 or more H.323 connections for playing exist.**

Watch Archives with Viewing Rights

You can enter the *Play Archive* menu by using the endpoint remote control to select **Play Archive** on the main menu interface and then select **OK**. The *Play Program* menu lists all programs available to the currently connected endpoints depending on the properties of the recorded program files. If the Viewing Rights properties of the program files are set to Allow All, or if the properties are set to Group List and your endpoint in connection belongs to a group in the list, these programs will be displayed in the current Play Program list.

Note: After your endpoint calls and connects to the RSS 2000, you can only see the programs if you have the viewing rights and if the program uses the video protocols that your endpoint supports. Archives recorded using the video protocols that your endpoint does not support will not appear in your archive list, even though viewing rights is available.

Enter PIN Code

You can play the currently selected program by using the endpoint remote control to select a program from the *Play Program* list and then press **OK**. If a archive is set with a PIN code before recording, the RSS 2000 will provide a voice prompt asking you to enter that PIN code when you play the archive. You type in the PIN code for the program through DTMF and then press '#' when finish. What you type appears as a line of '*' on the menu interface. If the PIN code you have entered is correct, you will immediately see the playing image of the program; otherwise you will hear a voice prompting 'Invalid PIN code, please enter it again.'

Fast Forward/Skip Forward/Skip Backward/Stop of Archives

During playing, you can use Forward/Backward/Stop on your endpoint remote control to control the program. A number of shortcut operations was defined through DTMF on RSS 2000 to control the program played, as shown in Table 3-1.

Table 3-1 DTMF Codes Description

DTMF Codes	Description
***1**	Pause
***2**	Resume
***3**	Stop
***4**	Skip Backward (one minute by default) (This interval is the same as the Iframe request interval.)
***6**	Skip Forward (one minute by default) (This interval is the same as the Iframe request interval.)
0-9	Fast Forward to 0%-90% (in time percentage) of the recorded files

On your endpoint, you can enter DTMF code '*1' to pause the program being played, '*2' to resume the paused program, and '*3' to stop playing and return to the main menu. You can type in '*4' and '*6' to skip the program being played backward and forward respectively. Skip backward/forward processes stop at locations of the corresponding previous/next Iframe. You can set the Iframe request interval for RSS to 1-10 minutes through Web UI, and the default interval is 1 minute. You can make the file fast forward to a point between 0%-90% on its timeline by typing in 0-9. After this, play will continue from the nearest Iframe.

Web Management

In addition to controlling the RSS 2000 with your endpoint remote control, you can also manage it through web pages, including query of system information, system usage and system configuration, account management, single point recording setting, point to point recording setting, dial out and Record through Web, managing recorded files, live streaming of recorded program, and display of the current H.323 connections.

Note： **1. RSS Web client is compatible with Windows 2000 SP4, Windows XP SP2, Windows 2003 and IE 6.0.**

2. Archive viewing is compatible with Windows Media player 9.0 and higher version.

Logging into the RSS 200 via the Web Client

After connecting your PC to the RSS 2000, you can log into the RSS 2000 to control it through IE.

Note: The RSS 2000 is optimized for use with IE6.0 web browser.

1. In the *URL* field of IE, enter the IP address for RSS 2000 and press Enter.
   The RSS 2000 login page is displayed, as shown in Fig. 4-1.

Fig. 4-1 Login RSS 2000 with web Client

2. Enter the correct *User Name* and *Password* and click **Login**.
   By default, the User Name is 'Administrator' and the Ppassword is 'polycom'. These values are saved for future login.
   Click the Clear button to clear the saved User Name and Password, and enter new values.

Query of System Information

System Information allows you to view the current system settings, such as System Name, Product Type, version , Maximum H.323 Connections, Maximum Archive Viewers, and Maximum Recording Sessions, as shown in Fig. 4-2 .

To display the system information, in the *System Management* pane, click **System Information**.

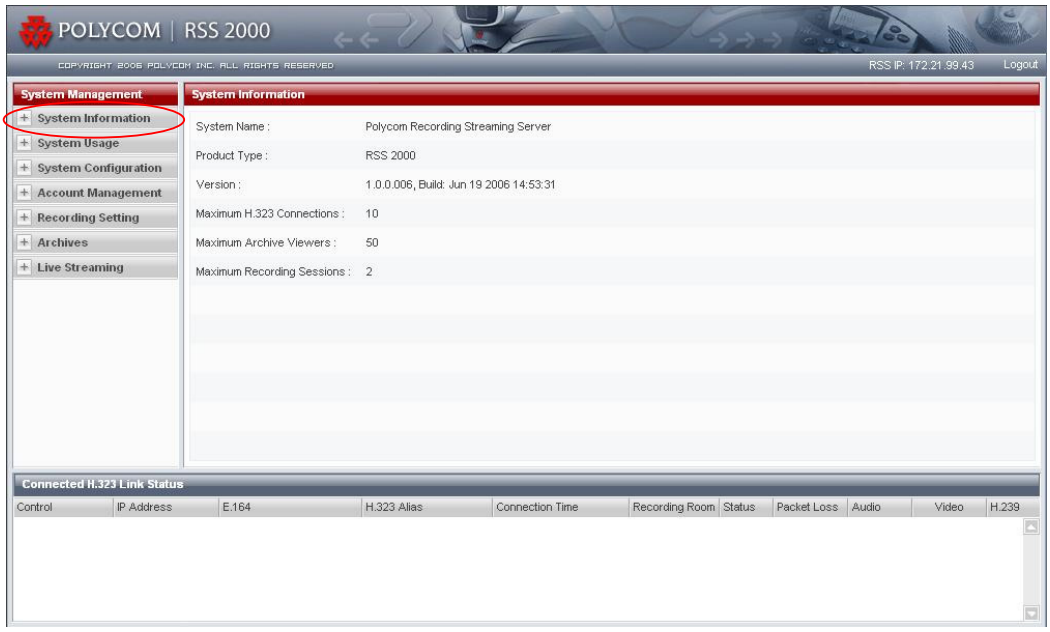


Fig. 4-2 Page of System Information

System Name: Displays the product name.
Product Type: Displays the Recording server type (RSS 2000).
Version: Displays the version number and the version release date and time.
Maximum H.323 Connections: Shows the Maximum number of H.323 Connections supported by the RSS 2000. The number of connections shown here is the maximum number of requests allowed without a recording task in process. When there are recording tasks going on, the RSS can support up to 5 requests.

Maximum Archive Viewers: Shows the maximum number of online VOD users that the RSS 2000 supports.

Maximum Recording Sessions: Shows the maximum number of recording participants that the RSS 2000 supports. There is only one participant in each single point recording, therefore no more than two single point recording tasks can be supported at one time. And in each point to point recording task, there are two participants; therefore only one point to point recording task can be supported at one time.

System Usage

You can view the Disk Usage, CPU Usage, Date & Time and you can synchronize the RSS 2000 time with the PC as shown in Fig. 4-3.

In the *System Management* pane, click **System Usage**.

Fig. 4-3 Page of System Usage

Disk Usage: Shows the current hard disk usage on the RSS 2000.

CPU Usage: Shows the current CPU usage on the RSS 2000.

Date & Time: Shows the system date and time on the RSS 2000.

Synchronize Date & Time with my PC: Click the 'Synchronize' button to synchronize the system time on the RSS 2000 with that on your controlling PC.

Note: This page is automatically refreshed every 30 seconds.

System Configuration

By clicking System Configuration in the function tree on the left side of the page, you can perform basic configurations for the device including IP settings, Gatekeeper Settings, IVR/Languages Settings, Backup/Cleanup settings, and Upgrade/Reset System.

IP Address Settings

Here you can set the IP address, subnet mask and gateway for LAN1 of the system. Click Save when finish to save the new IP address. The system will pop out a dialog box and prompt you to restart the system so that the changes can work. Click 'OK' to reset the device, and then you can use the new IP address to manage the device. After changing the IP address, subnet mask and gateway, and before clicking Save, you can press the Clear key to clear the new settings you have just entered and continue to use the existing IP address, subnet mask and gateway, as shown in Fig. 4-4 .

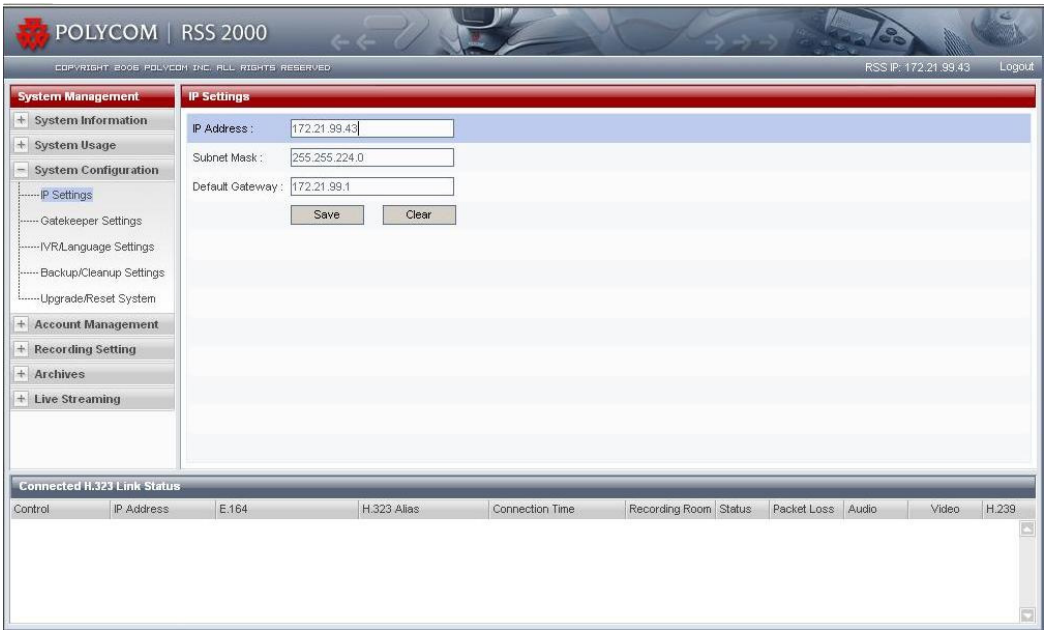


Fig. 4-4 IP address Settings

When setting the IP address, you can only input numerals 0-255 and dots for the IP address, subnet mask and gateway, and the relationship among them must be valid; otherwise an Error dialog box will pops out.

For example, if you enter 172.21.99.43 for the IP address, an Invalid IP Address prompt will appear, as shown in Fig. 4-5.

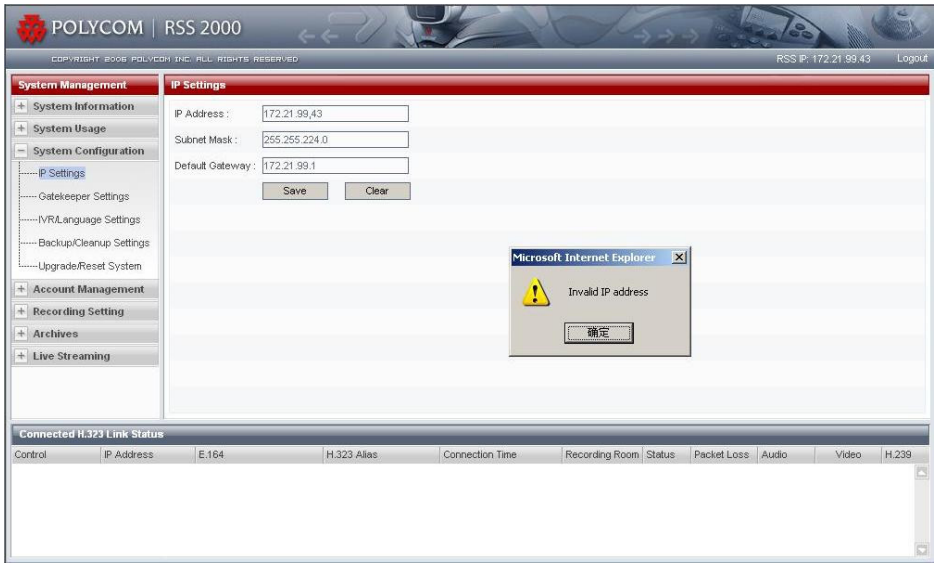


Fig. 4-5 Invalid IP address

If you enter 172.21.99.43 for the IP address, 255.255.255.0 for the subnet mask, and 172.21.96.254 for the gateway, you will see an Invalid Gateway prompt as shown in Fig. 4-6.

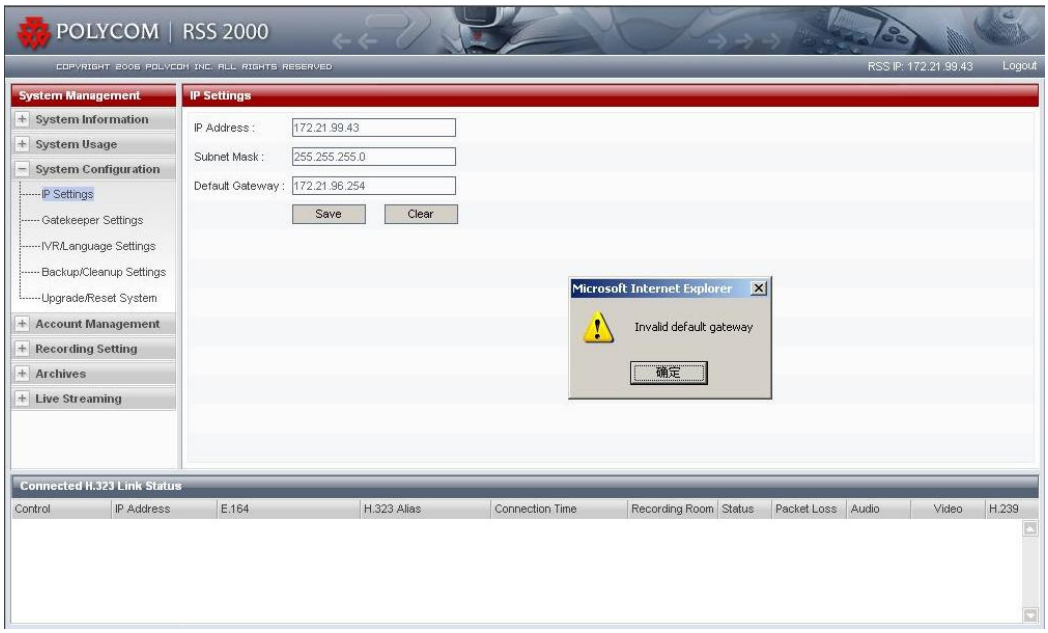


Fig. 4-6 Invalid gateway

Gatekeeper Settings

Here you can specify whether the RSS 2000 needs to register a gatekeeper. Select the check box to register to a gatekeeper. If a gatekeeper is not used, the relevant setting options under the box will be disabled and you will not be able to edit them, and the indication 'Unregistered' will appear at the top of the pane, as shown in Fig. 4-7.

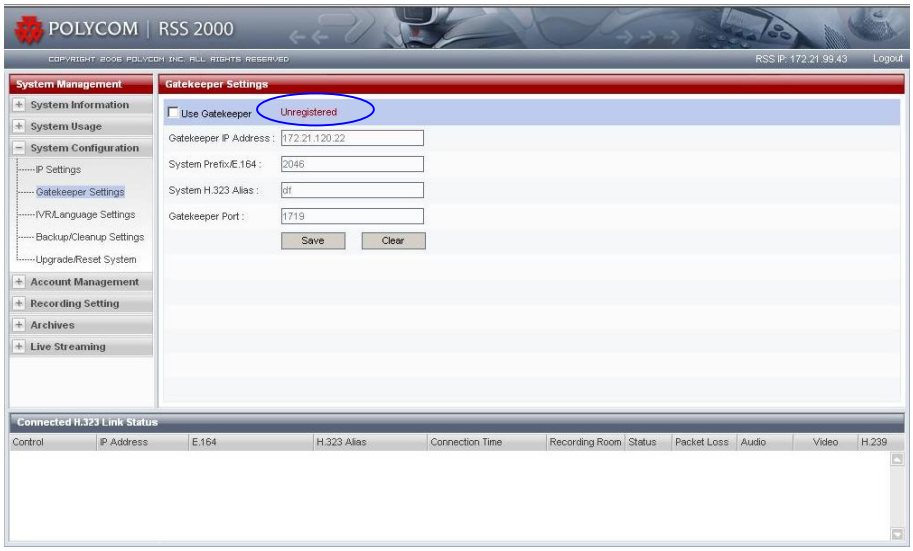


Fig. 4-7 Gatekeeper is unregisterted

And if you check the Use GK check box to register a gatekeeper, the relevant setting options will be enabled for changing, and after a successful registration the indication 'Registered' will appear after the box, as shown in Fig. 4-8.

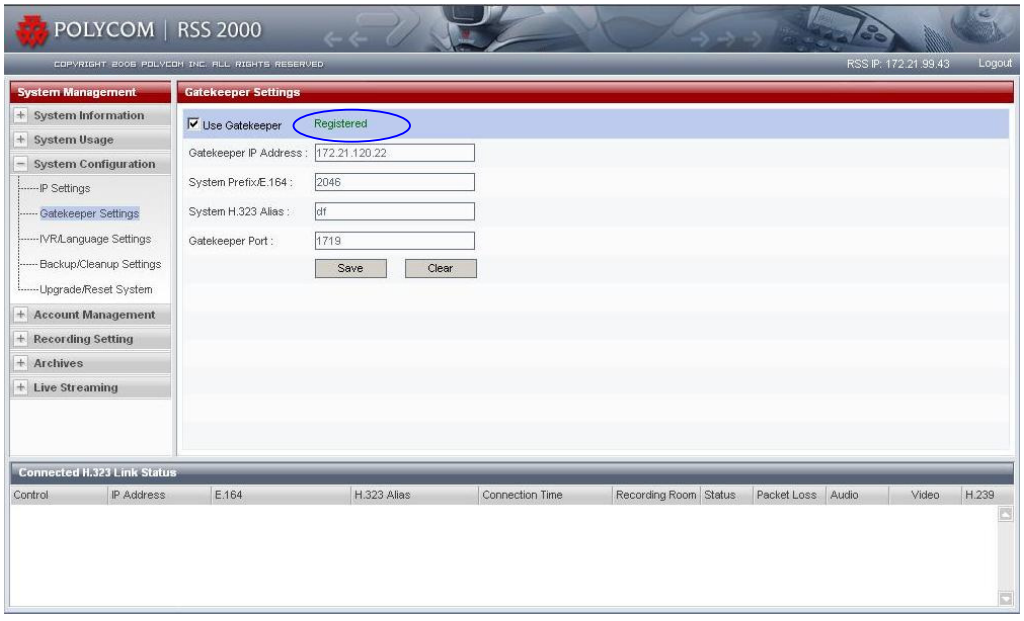


Fig. 4-8 Gatekeeper is used and successfully registered.

With the Use GK box checked, you can set the IP address, E.164 number and H.323 alias for the system where the gatekeeper is registered, and the port number used for the registration, as shown in Fig. 4-9.

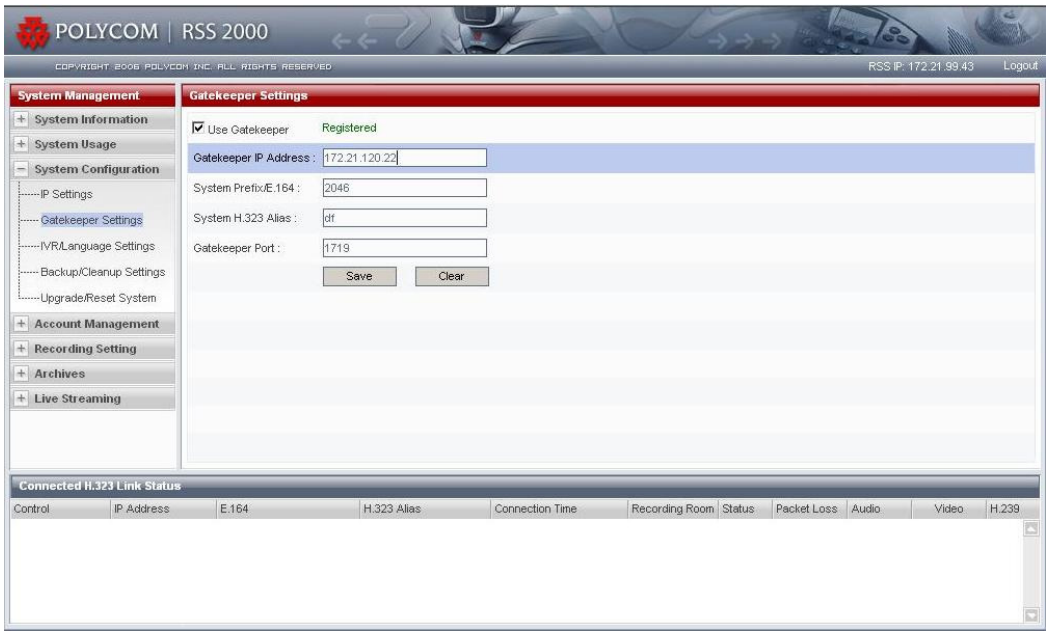


Fig. 4-9 Set Gatekeeper

You can only input numerals 0-255 and dots for the gatekeeper IP address; otherwise an Error dialog box will pops out, as shown in Fig. 4-10.

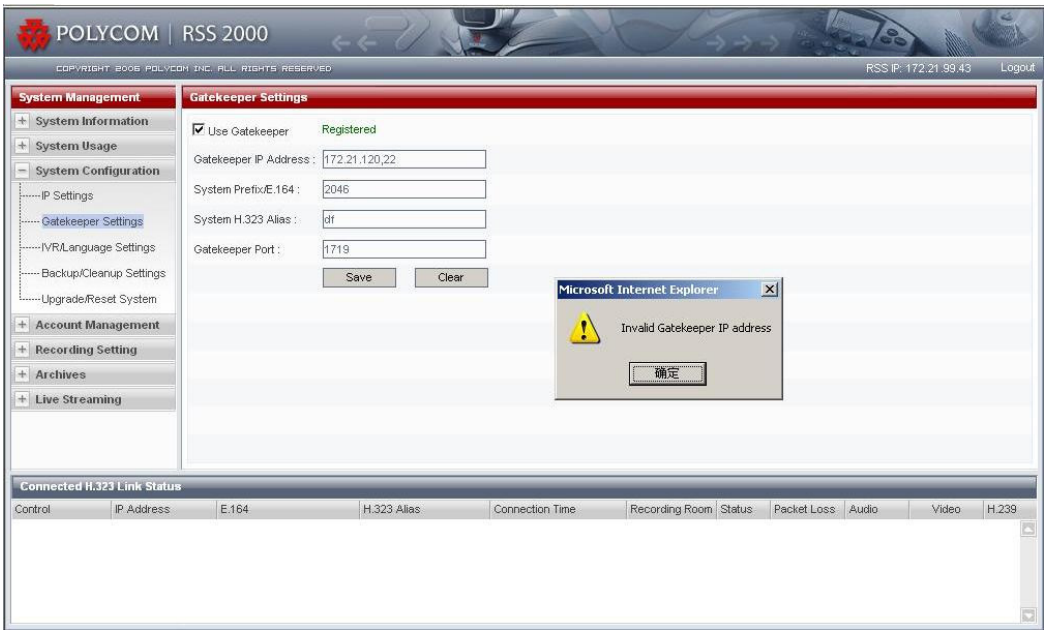


Fig. 4-10 Invalid IP Address

You can only input no more than 16 numerals for the E.164 number; otherwise an Error dialog box will pops out as shown in Fig. 4-11.

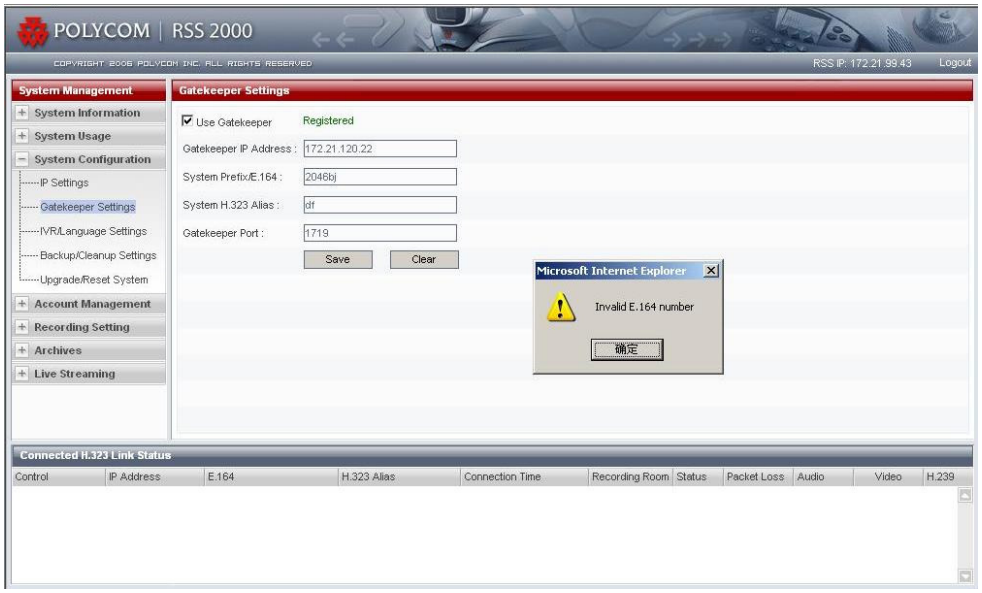


Fig. 4-11 Invalid E.164 number

You can input an H.323 alias of any length within 16 characters.

Typically, the default port number 1719 is required for the gatekeeper. You do not need to change it.

After entering all the relevant items, click the Save key to initiate the RSS 2000 registration. A 'Registered' sign will appear if the registration is successfully completed; otherwise an 'Unregistered' sign will appear, as shown in Fig. 4-12.

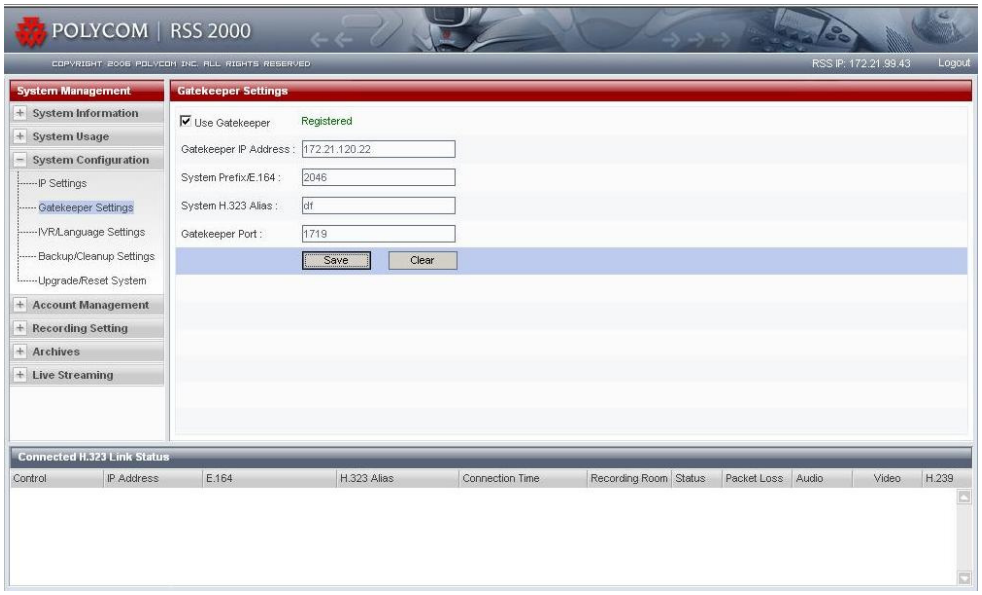


Fig. 4-12 Click Save to Register

If you want to continue with the existing settings before clicking the Save button, click Clear to cancel the changes you have just made.

Note: **If you check the Use Gatekeeper box but the registration fails, you can still use the IP address to call endpoints.**

Change IVR Language

You may hear different Language prompts in RSS 2000 operations. By clicking IVR/Language Setting in the function tree on the left side of the page, you can change these Languages. Current changeable Languages include: Welcome; Conference recording started; Conference recording paused; Conference recording resumed; Conference recording ended; Insufficient disk space for recording; Conference recording failed; Conference recording playback ended; Please enter your PIN code and put a number sign (#) at the end; and Invalid PIN code, please enter another one; as shown in Fig. 4-13.

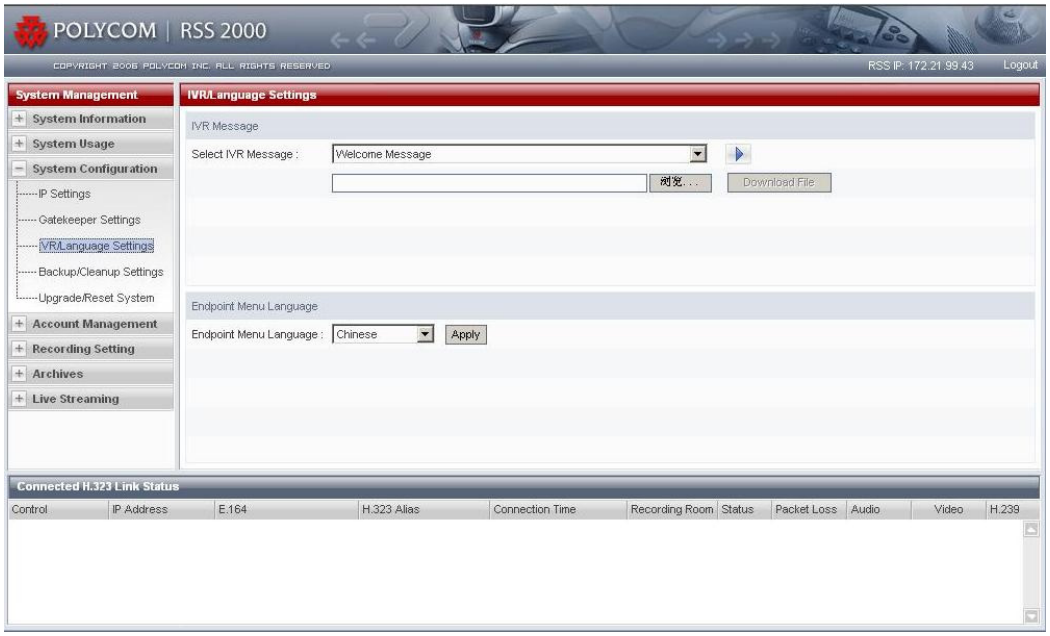


Fig. 4-13 Page of IVR Messager

For the IVR files to be uploaded to the RSS 2000, it is required that the filenames contain only letters and numerals; the files be in the WMV format only; the sampling frequency be 16KHz; and the voice lengths do not exceed 1 minute.

After changing an IVR Language, you can listen to it by selecting the Language and then clicking the Play key on the right side, as shown in Fig. 4-14.

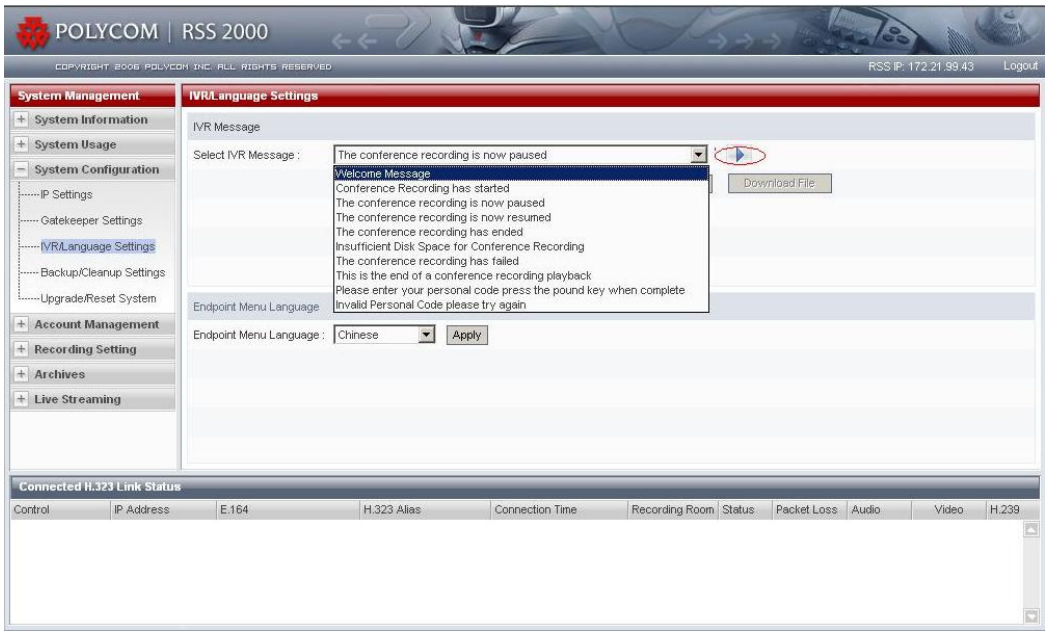


Fig. 4-14 Play IVR

To change an IVR Language, select that Language, click Browse to locate the file with which you want to make the change, and then click Download File to upload the file, as shown in Fig. 4-15. After the file is uploaded, you can verify that the file change is successful by playing the Language.

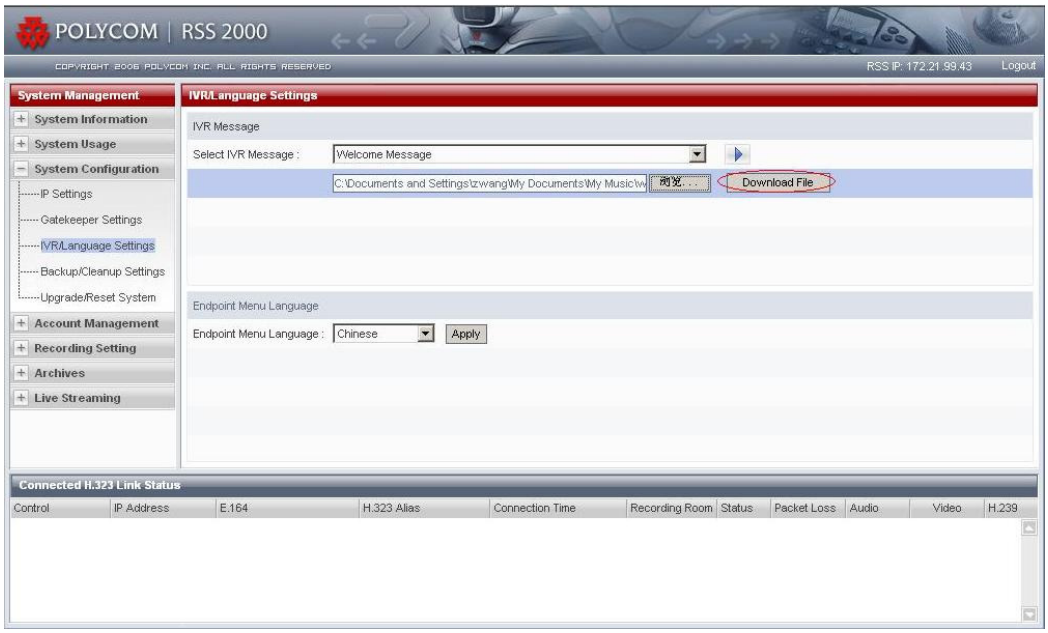


Fig. 4-15 Change IVR

Choose Languages for Endpoint Menu

After you call from your endpoint and establish a connection to the RSS 2000, you can see on a display unit the menu interface forwarded from the RSS 2000 through the video output of the endpoint. The available menu UI languages are English and Chinese, which can be specified through a webpage.

By selecting IVR/Language Setting from the navigation tree on the left side of the webpage, you can set a language for the menu UI, as shown in Fig. 4-16. You can switch between available menu UI languages by selecting a language for the endpoint menu and then clicking the Apply key.

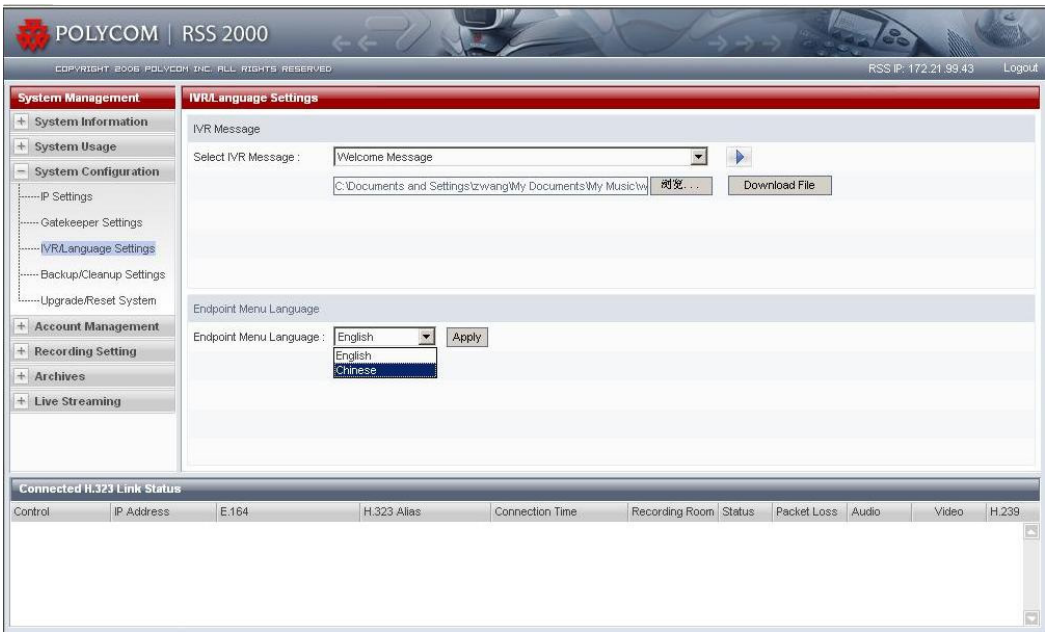


Fig. 4-16 Change languages for endpoint menu

Note: **The Endpoint Menu language for the current connection will not change immediately after switching to a new language for the endpoint menu. You can see the changed menu UI language only after you make another call to connect your endpoint again.**

Backup/Cleanup Settings for Recorded Files

By clicking Backup/Cleanup Settings on the webpage, you can backup, save and delete recorded archives.

You first need to deploy an FTP server to which you want to backup your files, and then, through the webpage, set the IP address and login password for the server and create an directory to hold your backups, as shown in Fig. 4-17.

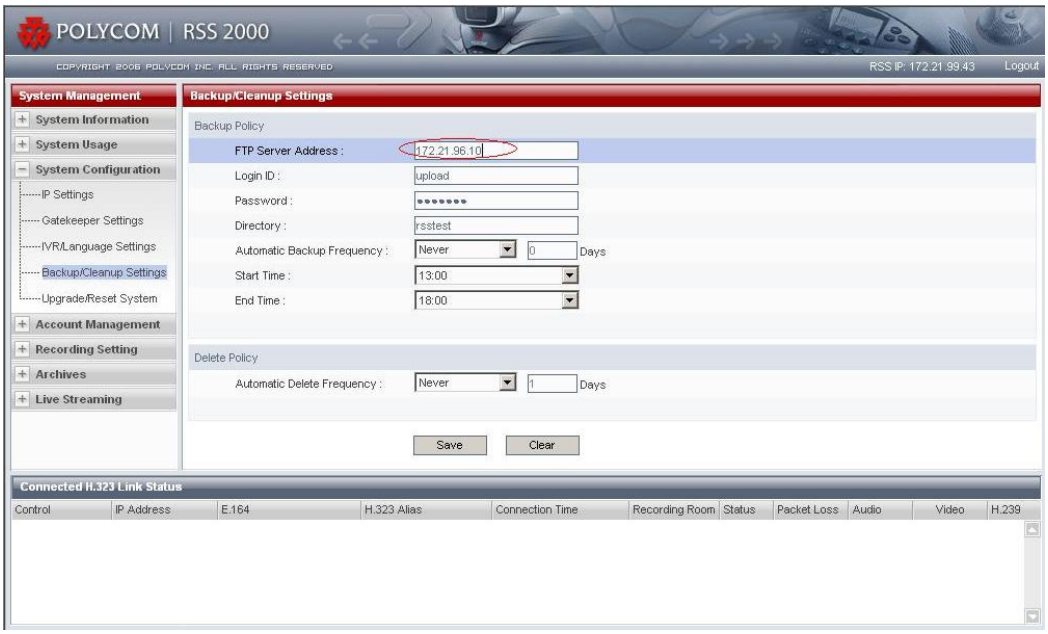


Fig. 4-175 Set address and password for FTP server

You have two choices for the backup policy: never backup, and backup in certain days after recording. If you choose never backup, your files will never be backed up to the FTP server. If you choose backup in certain days after recording, you may set a start time for backup, that is to choose a certain day after recording and a certain time on that day for the backup to start, as shown in Fig. 4-18.

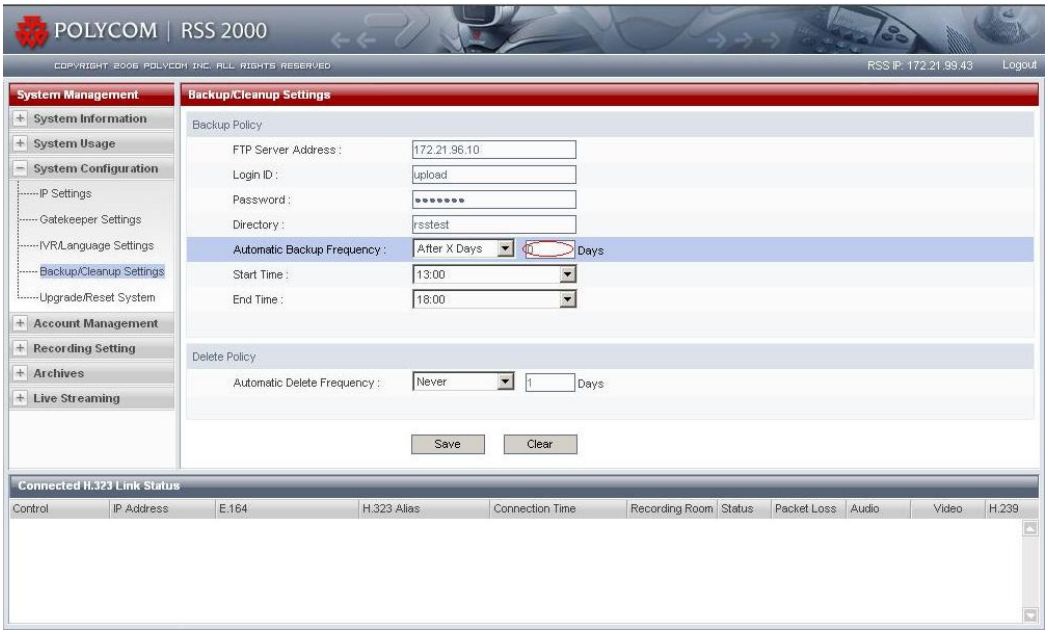


Fig. 4-18 Set backup start time

You can input a number of days within the range of 0-100, where 0 means that the backup will start right on the day when the archive recording ends. The time period can be any period within the range of 0:00-23:00, with the backup stop time after the backup start time.

Notes:

1. **The archive backup stops immediately when a archive recording/playback starts.**
2. **If such archive recording/playback ends within the backup period, the archive backup will continue. If it ends at or after the backup stop time, the archive backup will not continue. Instead, the backup will reset from the very beginning at the same start time on the following day and overwrite the partially backed up archive, if there is no archive recording/playback in process.**
3. **Files with backups are distinguished from those without backups by being displayed in pink on the webpage.**

You have two choices for the delete policy: never, and after X days. If you choose never cleanup, your archives will be stored on the RSS 2000 hard disk forever. If you choose cleanup in certain days after recording, you may set a number of days after the recording ends, and the file will be deleted in this number of days, as shown in Fig. 4-19.

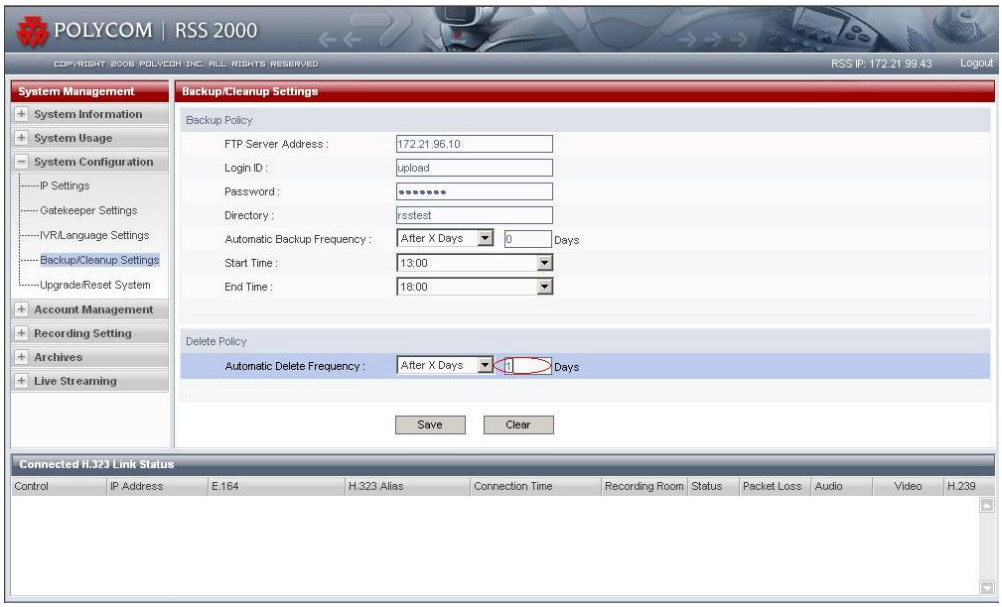


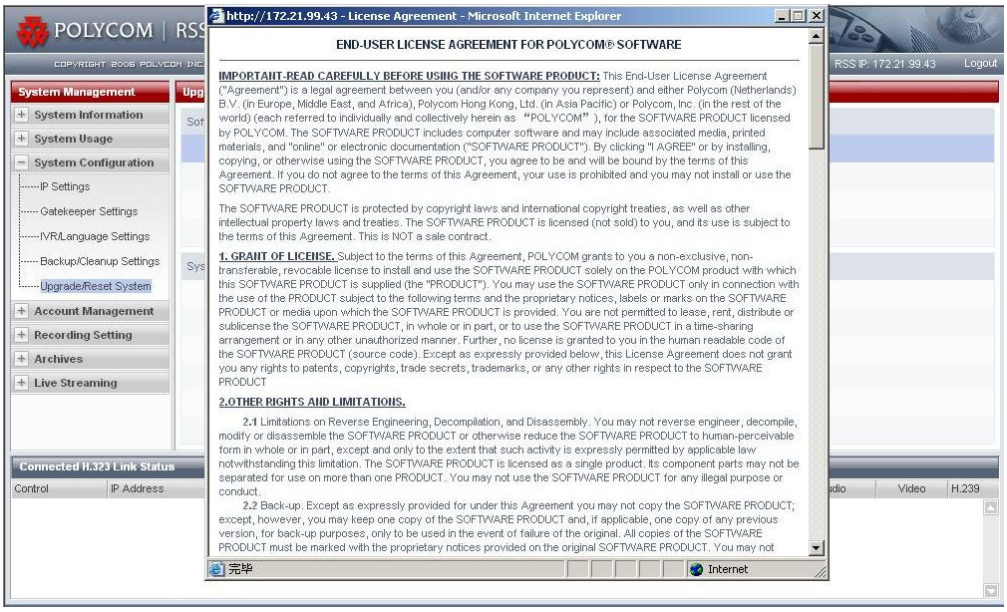
Fig. 4-19 Set Cleanup of files

You can input a number of days within the range of 0-100, where 0 means that the file will be deleted right on the day when the archive recording ends. The time period can be any period within the range of 0:00-23:00, with the cleanup stop time after the cleanup start time.

Note: **If you have set a 'never delete' property for the recorded archive, the archive can never be deleted even if you choose cleanup in the Backup/Cleanup policy.**

Device Upgrade

By clicking **Upgrade/Reset System** in the function tree on the left side of the webpage, you can upgrade the software on the device. You can upgrade your software only after you read the License Agreement and check the Agree box to confirm it; otherwise all options relating to upgrade will be disabled, as shown in Fig. 4-20.


POLYCOM | RSS
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2.2 Back-up. Except as expressly provided for under this Agreement you may not copy the SOFTWARE PRODUCT; except, however, you may keep one copy of the SOFTWARE PRODUCT and, if applicable, one copy of any previous version, for back-up purposes, only to be used in the event of failure of the original. All copies of the SOFTWARE PRODUCT must be marked with the proprietary notices provided on the original SOFTWARE PRODUCT. You may not
完毕
Internet
RSS IP: 172.21.99.43
Logout
System Management
System Information
System Usage
System Configuration
IP Settings
Gatekeeper Settings
IVR/Language Settings
Backup/Cleanup Settings
Upgrade/Reset System
Account Management
Recording Setting
Archives
Live Streaming
Connected H.323 Link Status
Control
IP Address
Video
H.239

Fig. 4-20 Read and confirm the License

After you read and agree the terms and conditions in the License Agreement, click the Browse key to select the correct upgrade file, and then press the Download File key to transfer the file, as shown in Fig. 4-21.

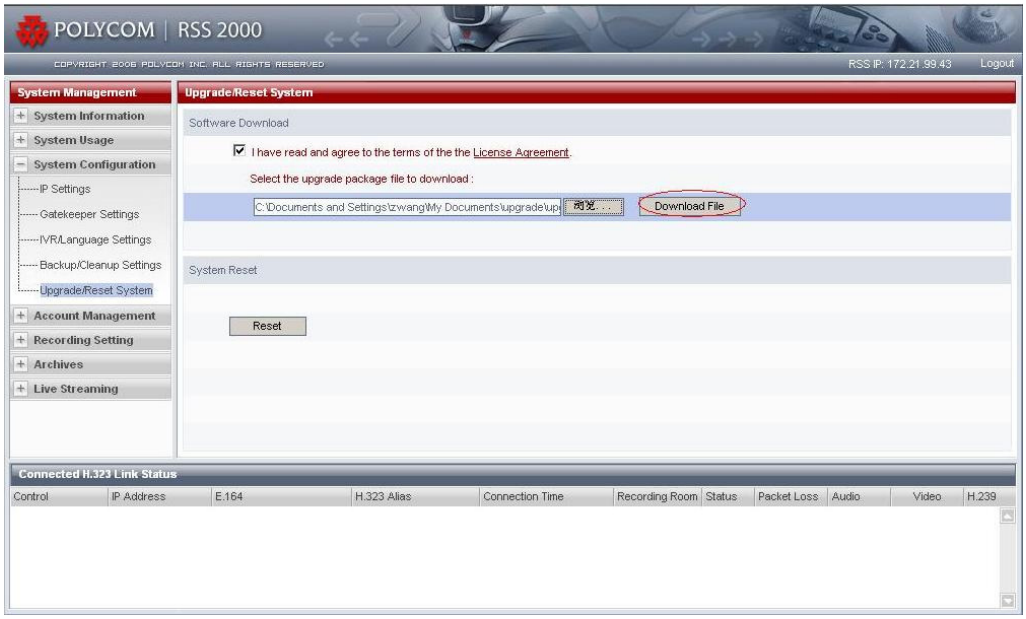

Fig. 4-21 Device Upgrade

After the file is transferred, the device will reset. Then you can verify the upgrading is successful by connecting to the device through IE and checking the version in the System Information.

To upgrade the device software:

1. Read the License Agreement, and check the box of 'I have read and agree with the terms and conditions in the License Document.'
2. Click **Browse** to select the correct upgrade package, as shown in Fig.4-22.

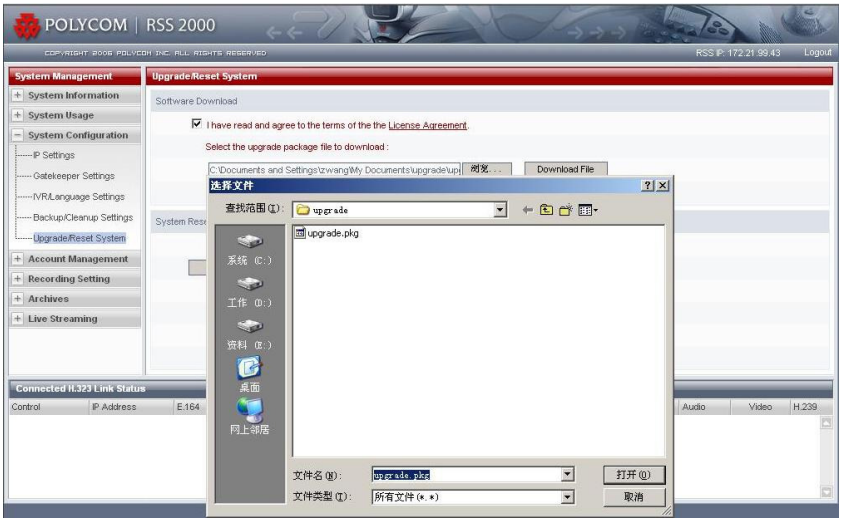

Fig.4-22 Select Upgrade File

3. Click the **Download File** button to upload the upgrade file.
4. Click the **Reset** button to reset the device.
5. Click **System Information** in the *Device Management* pane to check the version and verify the upgrading is properly completed.

Device Reset

You can reset your device by clicking **Upgrade/Reset System** in the function tree on left side of the web page, as shown in Fig. 4-23.

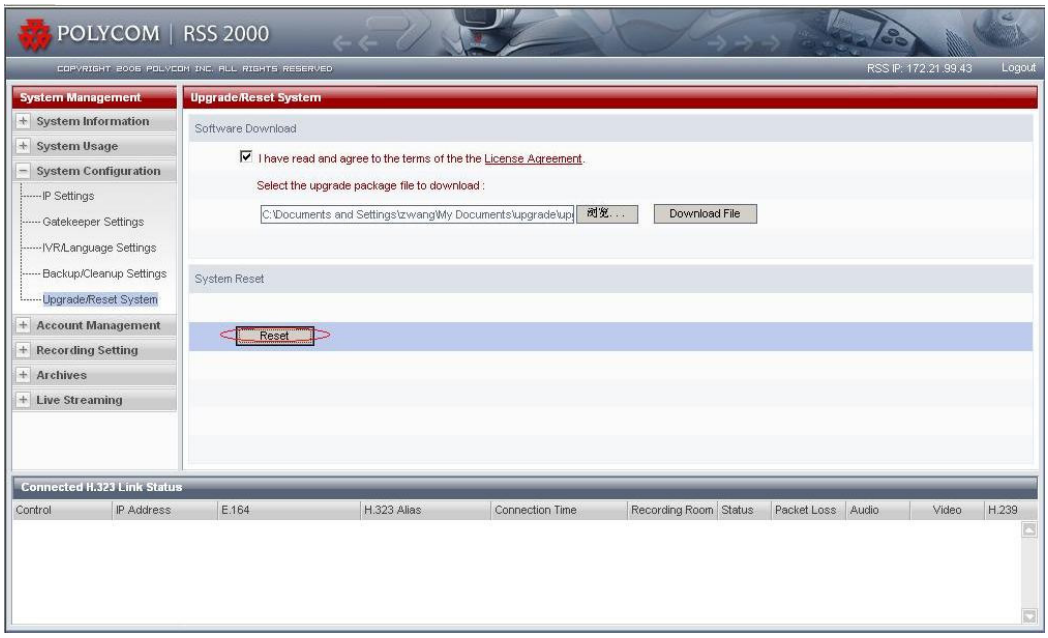

Fig. 4-23 Device Reset

Click the **Reset** button, and a dialog box will appear for you to confirm whether to reset the device.

Click **OK**.
The device resets, and prompted whether to close the current web page.

Click **OK** to close the web page, or Cancel to leave the web page open.

Note: The device will not be allowed to reset if an H.323 connection exists.

Account Management

You can set endpoint properties, user properties and user groups by clicking **Account Management** in the function tree on the left side of the web page.

Endpoints Management

On the *Endpoint Management* page, you can perform operations including adding endpoints, modifying endpoint properties and deleting endpoints.

Add Endpoints

Click the **New** button on the *Endpoint Management* page to go to the Add Endpoints page, as shown in Fig. 4-24.

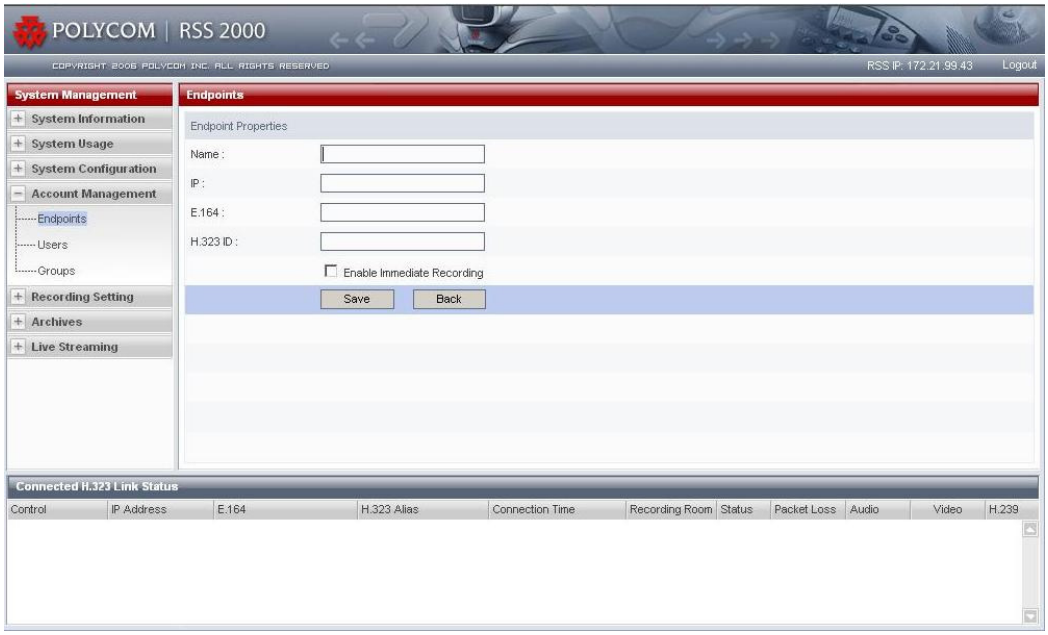

Fig. 4-24 Add Endpoints

On the *Add Endpoints* page, you can set names, IP addresses, E.164 numbers and H.323 alias of new endpoints, and enable or disable speed recording for these endpoints.

Name: You can type in any characters, with a length limit of 32 characters.

IP Address: You can only input numerals 0-255 and dots in the format of 'xxxx.xxxx.xxxx.xxxx'.

E.164 Number: You can only input numerals, with a length limit of 16 characters.

H.323 Alias: You can type in any characters, with a length limit of 16 characters.

Enable Speed Recording: When selected, this option allows automatic start of recording upon connection if recording resource is available, without menu operations needed.

Notes:

1. **No duplicate endpoint name can be added; and the name and IP address are required items.**
2. **In recording rights and viewing rights authentication, all the items that you set when adding an endpoint will be authenticated, including IP address, E.164 number and H.323 alias.**
3. **Maximum 200 endpoints can be added.**

After setting relevant property items for the endpoint, click the Save key to save the settings and add the endpoint, or click the Back key to cancel the settings and return to the Endpoint page.

Modify Endpoints Properties

You can modify the properties of an existing endpoint by clicking the property icon for that endpoint, as shown in Fig. 4-25.

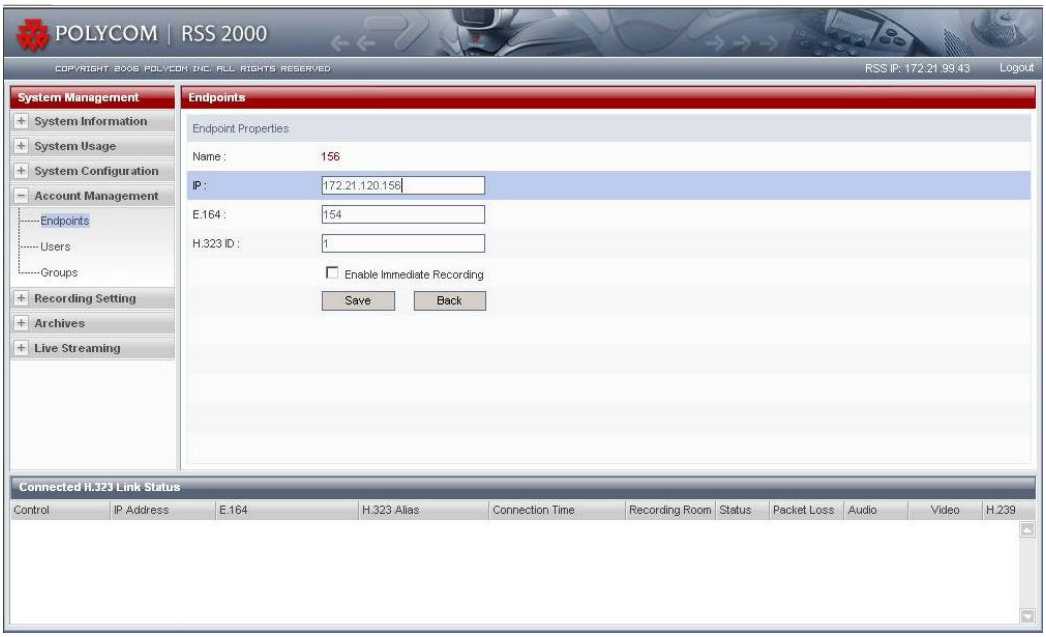

Fig. 4-25 Modify Endpoint Properties

On the *Modify Endpoint Properties* page, you can modify names, IP addresses, E.164 numbers and H.323 alias of endpoints, and enable or disable speed recording for the endpoints.

IP Address: You can only input numerals 0-255 and dots in the format of 'xxxx.xxxx.xxxx.xxxx'.

E.164 Number: You can only input numerals, with a length limit of 16 characters.

H.323 Alias: You can type in any characters, with a length limit of 16 characters.

You can enable or disable speed recording, as appropriate.

Note: The endpoint name cannot be modified.

After setting relevant property items for the endpoint, click the Save key to save the settings and complete the modification, or click the Back key to cancel the settings and return to the *Endpoint* page.

Delete Endpoints

You can click the **Delete** button to delete existing endpoints from the *Endpoint* page. To delete endpoints, first select one or more endpoints to delete, or select Delete All to delete all existing endpoints, as shown in Fig. 4-26.

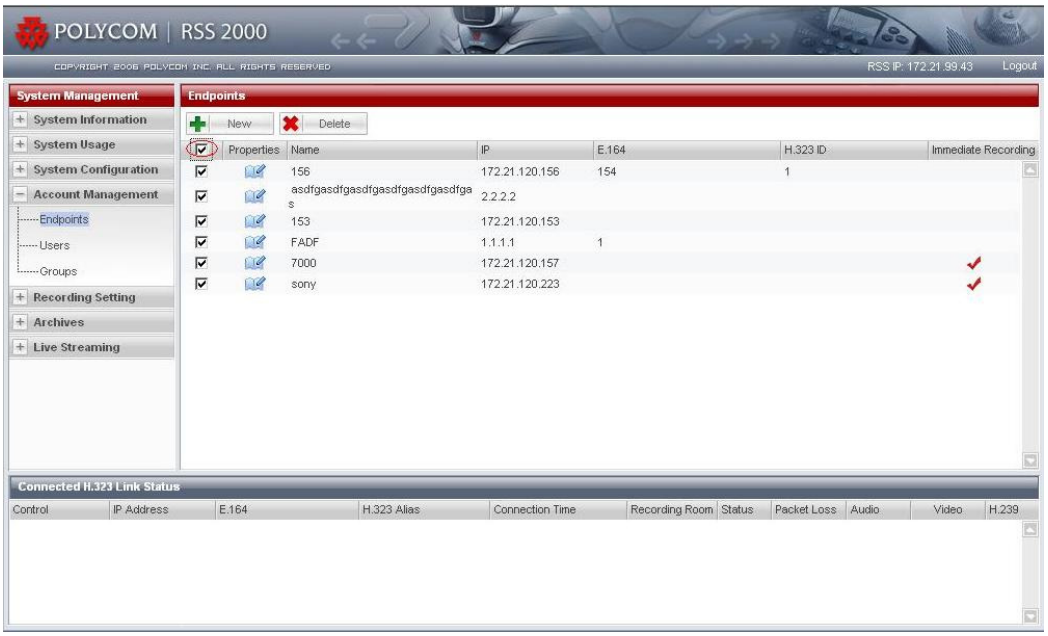

Fig. 4-26 Select Delete All

Then click the **Delete** button, and a dialog box pops out asking whether to delete the endpoint(s). Select OK to delete the endpoint(s), or select Cancel to cancel the delete operation.

Note: **You can select all endpoints by selecting the Select All check box, the first check box under the Add key on the Endpoint page.**

Users Management

On the *User Management* page, you can perform operations including adding users, modifying user properties and deleting users.

Add Users

Click the **New** button on the *User Management* page to go to the Add Users page, as shown in Fig. 4-27.

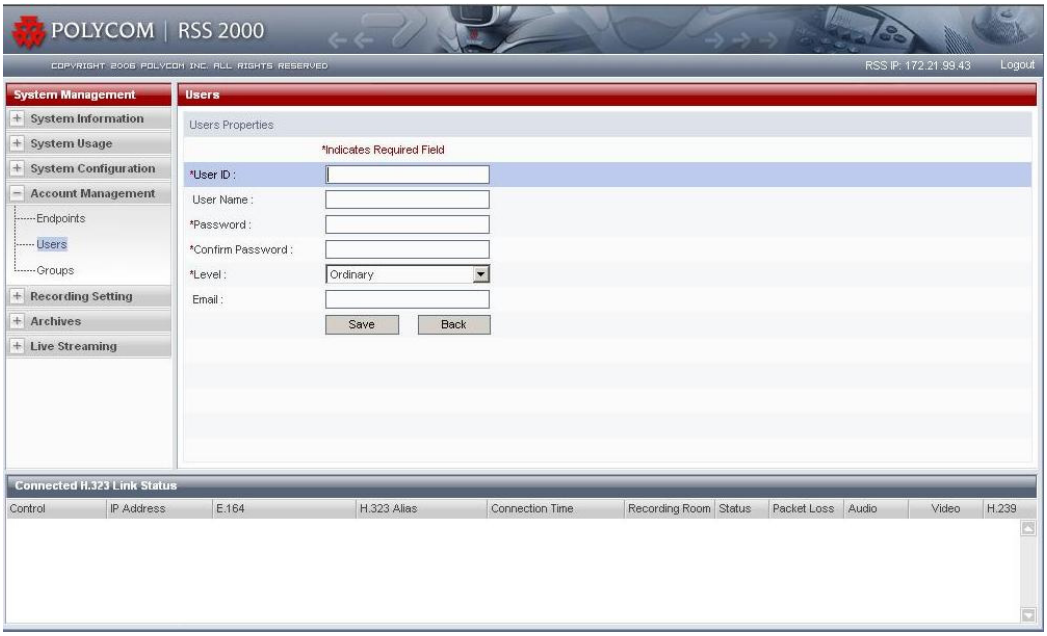

Fig. 4-27 Add Users

On the Add Users page, you can set user IDs, user names, user passwords, user rightss and email addresses for new users.

User ID: A user needs to input this ID for login. You can type in any characters, with a length limit of 32 characters.

User Name: This is an optional item, and each user name is corresponding to a User ID. You can type in any characters, with a length limit of 32 characters.

User Password: You can type in any characters, with a length limit of 32 characters. You need to input a password twice, with the second input to confirm the first. Both inputs must be identical with each other; otherwise an Error prompt will appear. The User Password will be left blank by default if no password is provided.

User Rights: Two optional user rights levels are available: Ordinary User and Administrator User. By system default, there exists a single super administrator named Administrator, which has all administration rights and cannot be deleted. Other users with administration rights, added by the Administrator, have the same rights as the Administrator's except the User Account Administration rights, which allows adding/deleting other users.

Email Address: Enter a valid email address with a length limit of 64 characters.

Note:

1. **The User ID is unique, and no duplicate is allowed. The User ID and User Rights are required items.**
2. **Upon login, an ordinary user and an administrator user will see different page contents. An administrator user can see all options in the function tree, while an**

ordinary user can only see the archive list, live streaming archives and personal user information.

3. **Multiple users are allowed to use a single user name to log in at the same time.**
4. **Maximum 200 administrators can be added.**

After setting relevant property items for the user, click the Save key to save the settings and add the endpoint, or click the Back key to cancel the settings and return to the User page.

Modify Users Properties

You can use an Administrator username to modify the properties of an existing user by clicking the property icon for that user, as shown in Fig. 4-28.

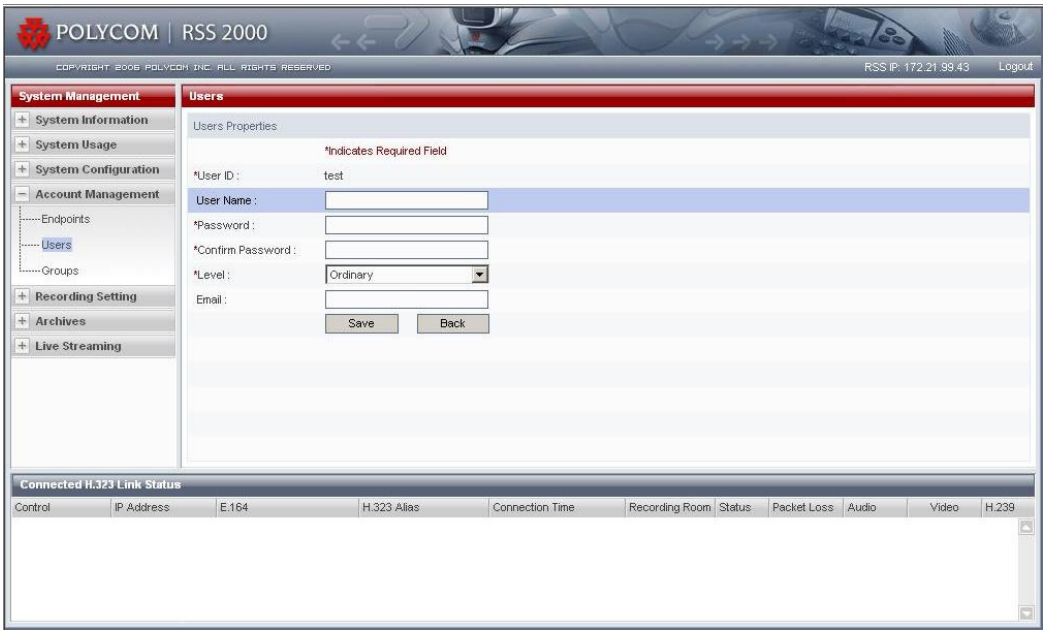

Fig. 4-28 Modify user properties

On the *Modify User Properties* page, you can modify user names, user passwords, user rights and email addresses for users.

User Name: You can type in any characters, with a length limit of 32 characters.

User Password: You can type in any characters, with a length limit of 32 characters.

User Rights: Two optional user rights levels are available: ordinary user and administrator user.

Email Address: Enter a valid email address with a length limit of 64 characters.

Note: The user name cannot be modified.

After setting relevant property items for the user, click the Save key to save the settings and complete the modification, or click the Back key to cancel the settings and return to the User page.

Delete Users

You can click the **Delete** button to delete existing users from the User page. To delete users, first select one or more users to delete, or select Delete All to delete all existing users, as shown in Fig. 4-29.

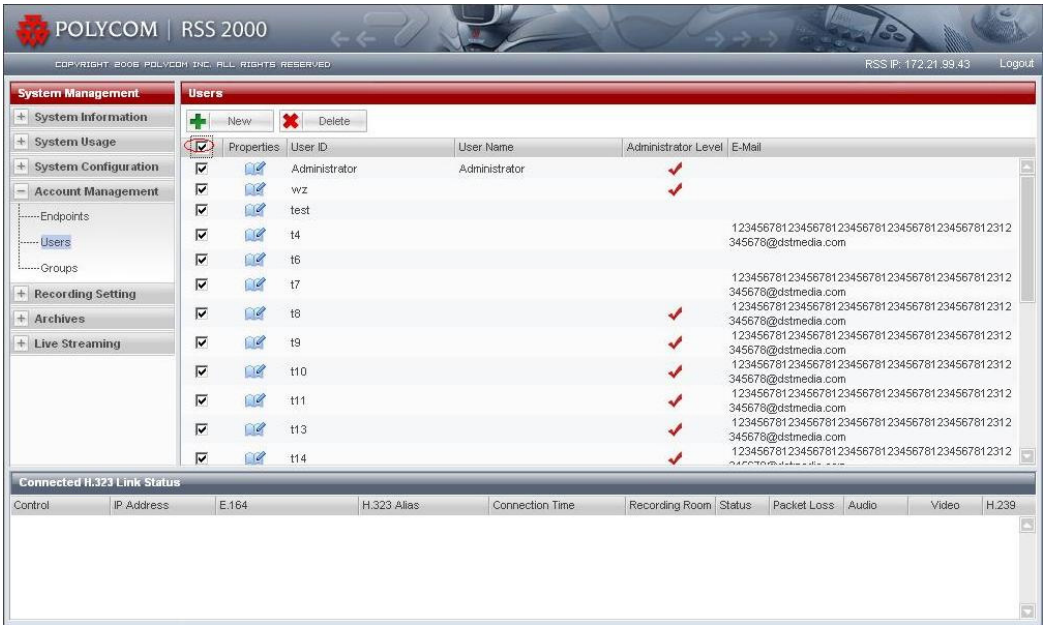

Fig. 4-29 Select Delete All

Then, click the **Delete** button, and a dialog box pops out asking whether to delete the user(s). Select OK to delete the user(s), or select **Cancel** to cancel the delete operation.

Note: **You can select all users by selecting the Select All check box, the first check box under the Add key on the User page.**

User Groups Management

The *User Group* is used to manage users with common characteristics in groups. By defining user groups, you can unify settings for users in the same category, for example, to set unified recording rights and viewing rights for them. On the *User Group* page, you can perform operations including adding user groups, modifying user group properties and deleting user groups.

Add User Groups

Click the **New** button in the *User Group Management* page to go to the **Add User Groups** page, as shown in Fig. 4-30.

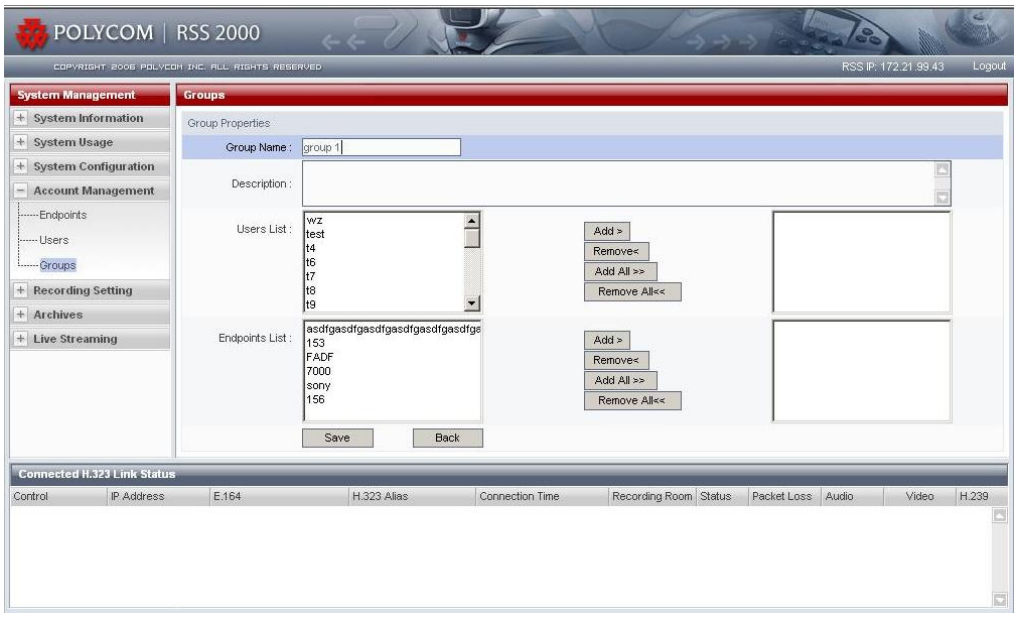

Fig. 4-30 Add User Group

On the *Add User Groups* page, you can set user group names and user group descriptions for new user groups, and endpoints and users included in these user groups.

User Group Name: You can type in any characters, with a length limit of 32 characters.

User Group Description: You can type in any characters, with a length limit of 128 characters.

User Group Members: User group members include endpoints and users. You can select any added endpoints and users for a user group, as shown in Fig. 4-31.

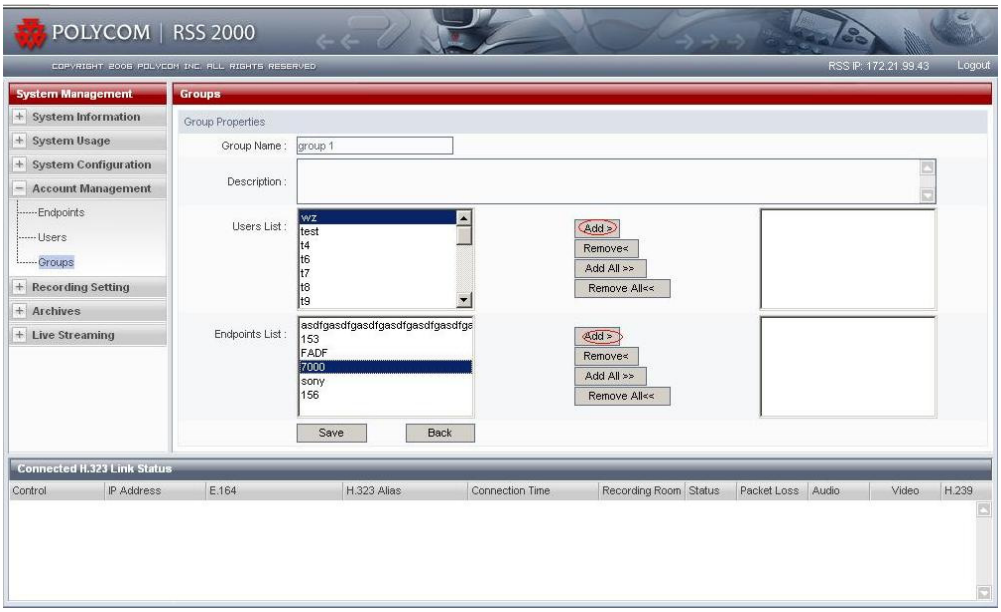

Fig. 4-31 Select endpoints and users for user groups

You can select to add single, multiple or all endpoints and users to a user group, and you can use the Ctrl and Shift keys to make the selections.

Notes:

1. **The User Group Name is a required and unique item, and no duplicate is allowed. The User Group Description and User Group Members are optional items and can be left blank.**
2. **Maximum 200 user groups can be added.**

After setting relevant property items for the user group, click the Save key to save the settings and add the user group, or click the Back button to cancel the settings and return to the User Group page.

Modify User Groups Properties

You can modify the properties of an existing user group by clicking the property icon for that user group, as shown in Fig. 4-32.

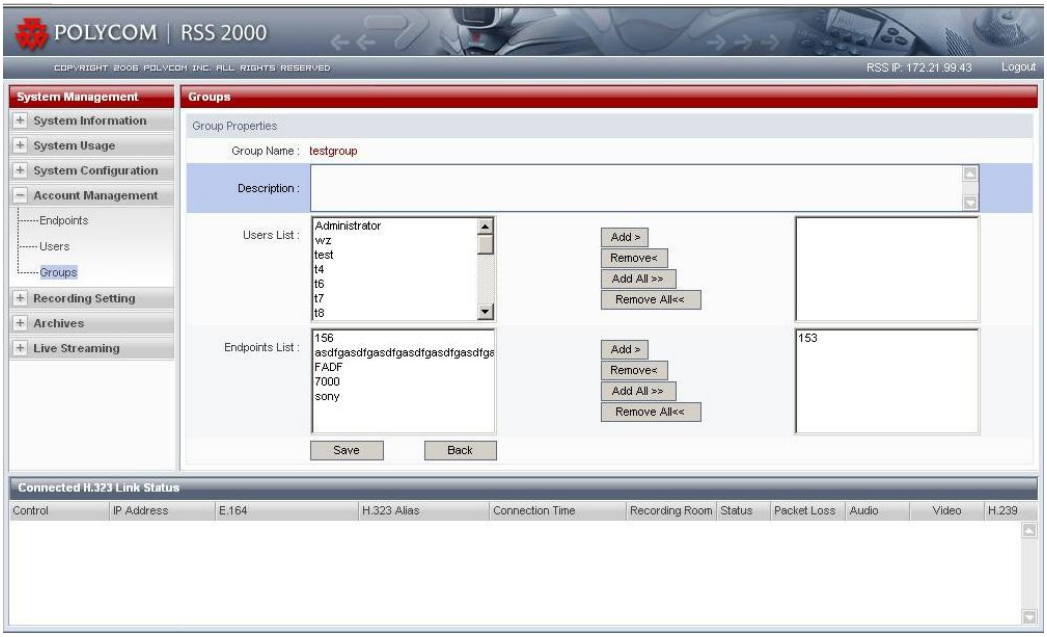

Fig. 4-32 Modify User Group Properties

On the *Modify User Group Properties* page, you can modify user group descriptions and user group members for user groups.

User Group Description: You can type in any characters, with a length limit of 128 characters.

User Group Members: User group members include endpoints and users. You can select any added endpoints and users for a user group, as shown in Fig. 4-33.

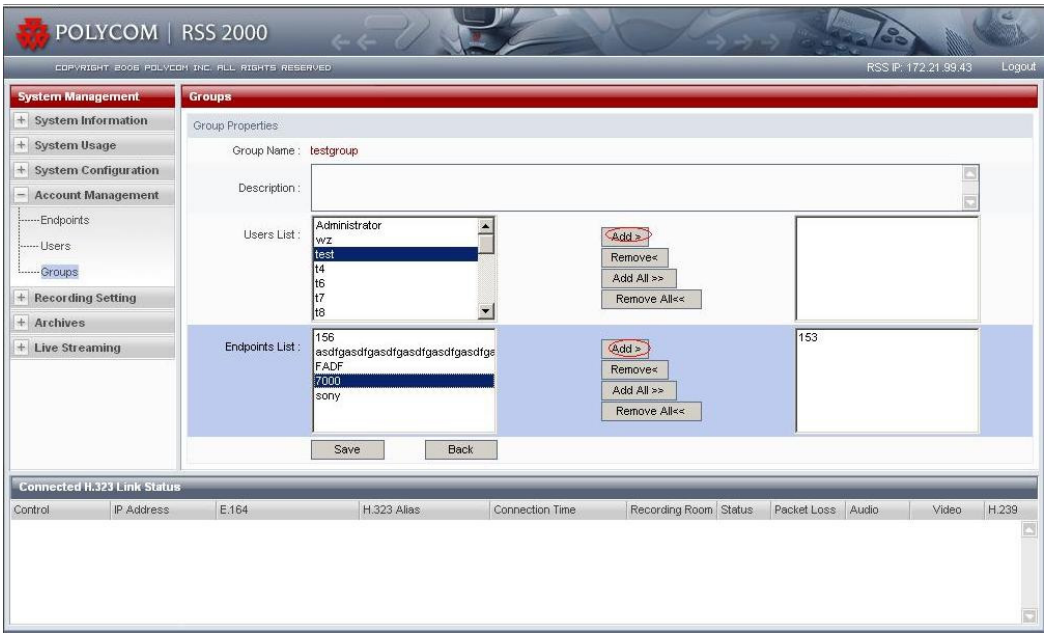

Fig. 4-33 Modify endpoints and users for user groups

You can select to add single, multiple or all endpoints and users to a user group, and you can use the Ctrl and Shift keys to make the selections.

After setting relevant property items for the user group, click the Save key to save the settings and complete the modification, or click the **Back** key to cancel the settings and return to the *User Group* page.

Delete User Groups

You can click the **Delete** button to delete existing user groups from the *User Group* page. To delete user groups, first select one or more user groups to delete, or select **Delete All** to delete all existing user groups, as shown in Fig. 4-34.

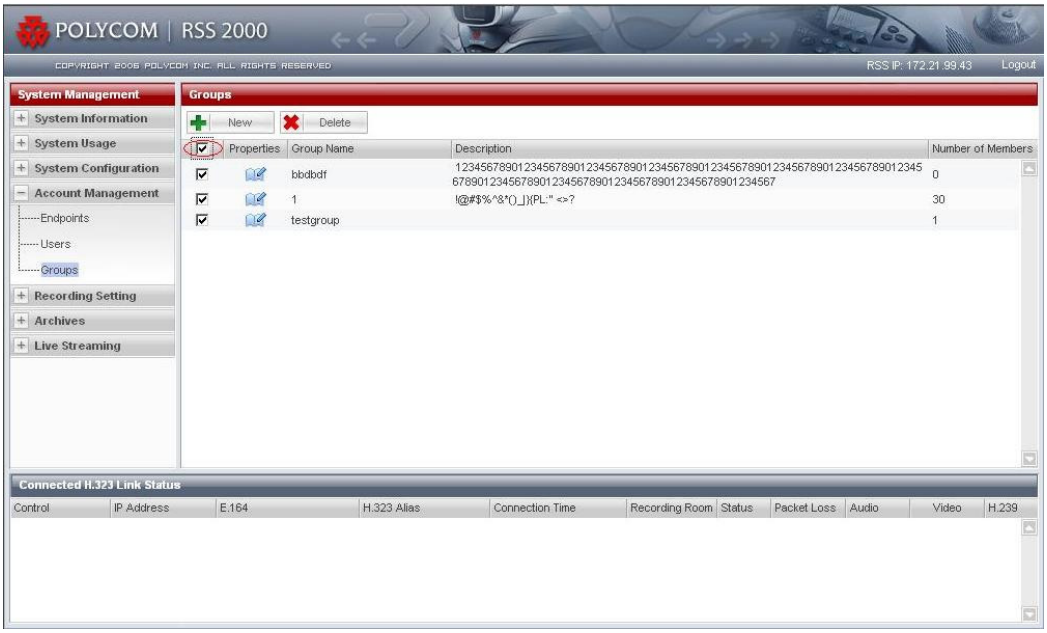

Fig. 4-34 Select Delete All

Then click the **Delete** button, and a dialog box pops out asking whether to delete the user group(s). Select **OK** to delete the user group(s), or select Cancel to cancel the delete operation.

Note: **You can select all user groups by selecting the Select All check box, the first check box under the Add key on the User Group page.**

Recording Settings

You can set the RSS 2000 functions by clicking **Recording Settings** in the function tree on the left side of the web page, including single point recording properties, point to point recording properties, and web calling for recording.

Single Point Recording Settings

By performing single point settings on a webpage, you can initialize single point recording parameters, so that a single point recording can start on basis of the preset parameters when an endpoint calls the RSS 2000 for the recording. Single point recording settings may include whether to record H.239 dual video, Iframe request interval for recording, whether to record a live archive, and recording rights and viewing rights.

Record H.239 Dual Video of PC Screen

With this function selected, an H.239 dual video of the PC screen will be recorded in the process of single point recording, at a frame rate of 1 frame per second. When you play the recorded archive on a webpage, you will see two pop-out windows, with one showing the main channel image and the other showing the dual video image of PC screen, as shown in Fig. 4-35. The recorded dual video of PC screen supports the XGA resolution.

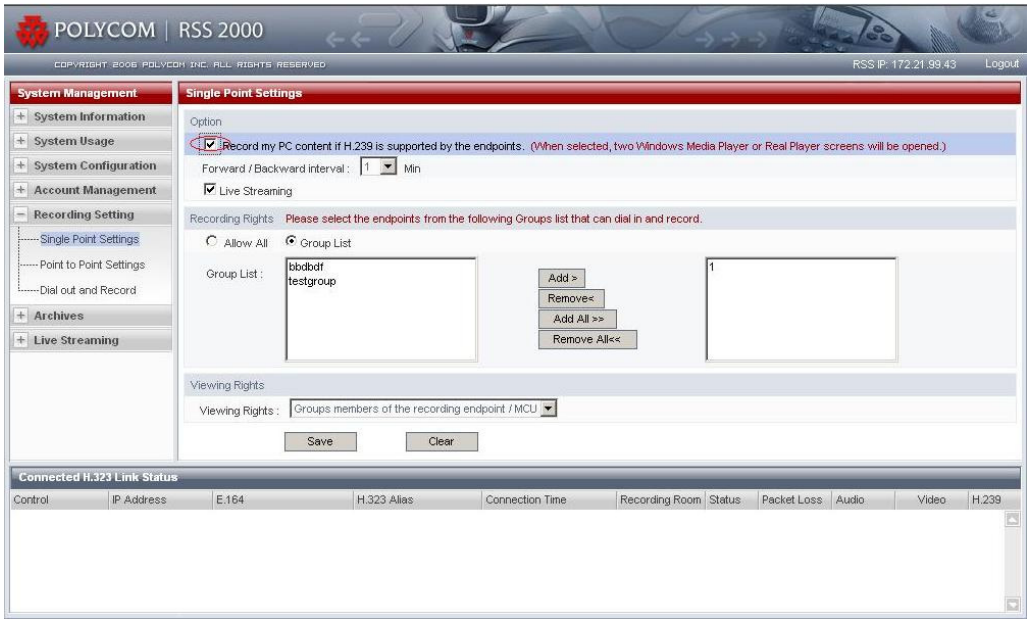

Fig. 4-35 Set record PC content

Note: **The ability of an endpoint to record the duel video of PC screen is determined by the endpoint's support for H.239 instead of its enabling duel video recording.**

Setting the Interval for Requesting I Frames during Recording

For good playback quality, the RSS 2000 periodically requests Iframes from the endpoint. The Iframe request interval is one minute by default, and can be set to 1-10 minutes, as shown in Fig. 4-36.

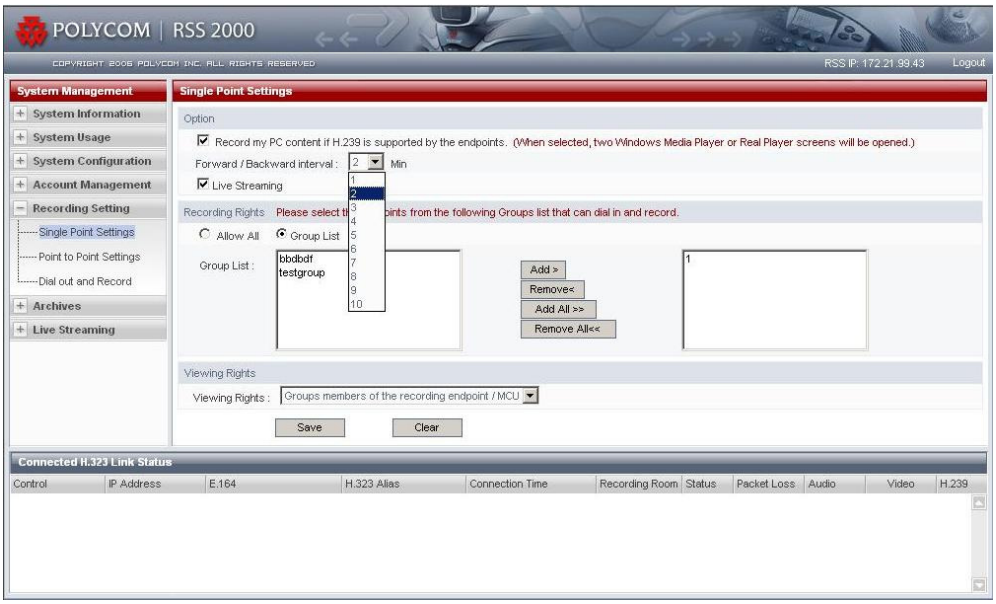

Fig. 4-36 Set Iframe interval

If the duel video is recorded at the same time, Iframes of both the main channel image and the duel video image will be requested at the same preset interval points. During playback at an endpoint, the Skip Forward/Backward operations through DTMF will stop at the Iframe location nearest to the intended stop point.

Live Stream Archive

By selecting this function, you can enable live streaming a archive in single point recording, as shown in Fig. 4-37.

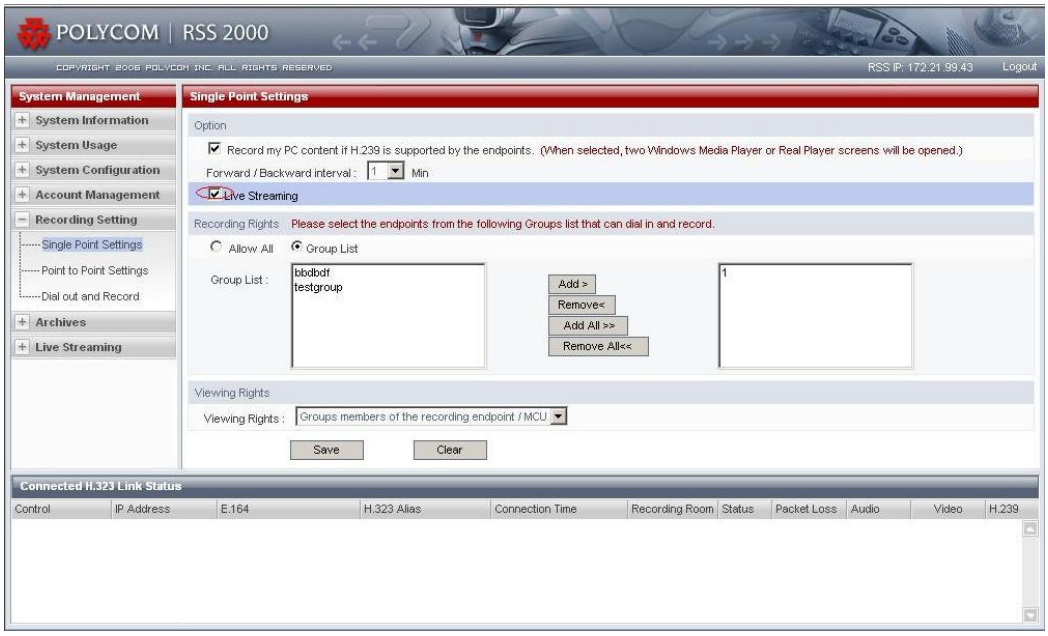

Fig. 4-37 Set live streaming

With this function selected, you can click the **Live Streaming** option to view live streaming of the archive.

Set Recording Rights

This option determines which endpoints are allowed for single point recording upon connection to the RSS 2000 when recording resource is available. Two optional recording rights levels are available: all endpoints (default), and endpoints within user group list only, as shown in Fig. 4-38.

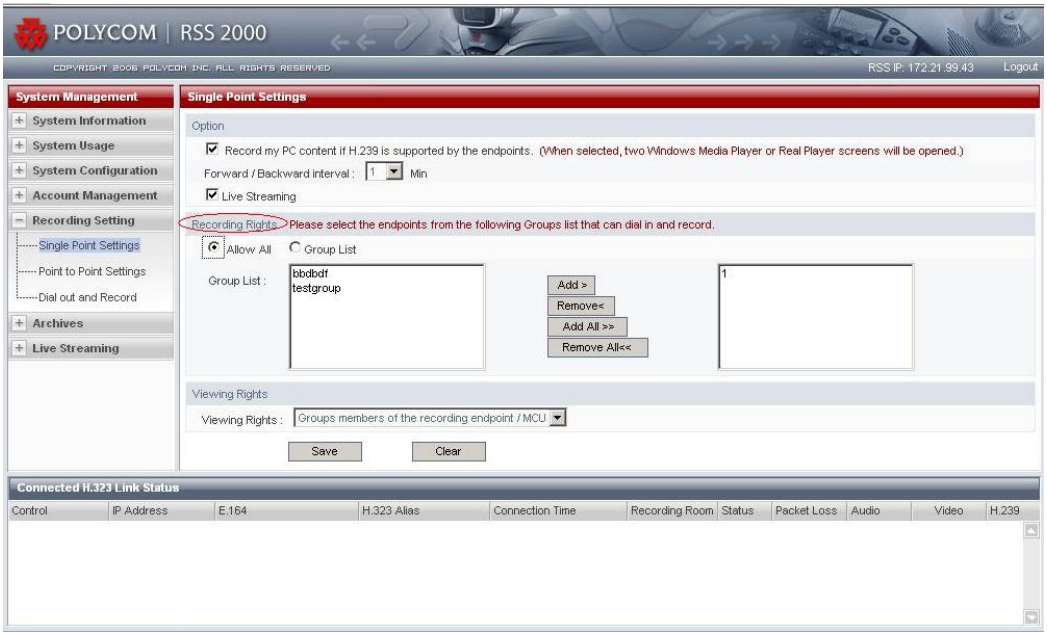

Fig. 4-38 Set recording rights

An endpoint can start to record an available resource only if it has recording rights. Otherwise, it can not start recording even if the recording resource is available. When an endpoint without recording rights tries to start recording, a 'Without recording rights' message appears on the endpoint menu interface, as shown in Fig. 4-39.

Fig. 4-39 Without recording rights

All endpoints: This option allows all endpoints to start recording the available resource upon connection to the RSS 2000.

Endpoints within user group list only: This option only allows endpoints within selected user groups to start recording. To set user groups, select them from existing user groups and add them in the list of user groups with recording rights, as shown in Fig. 4-40.

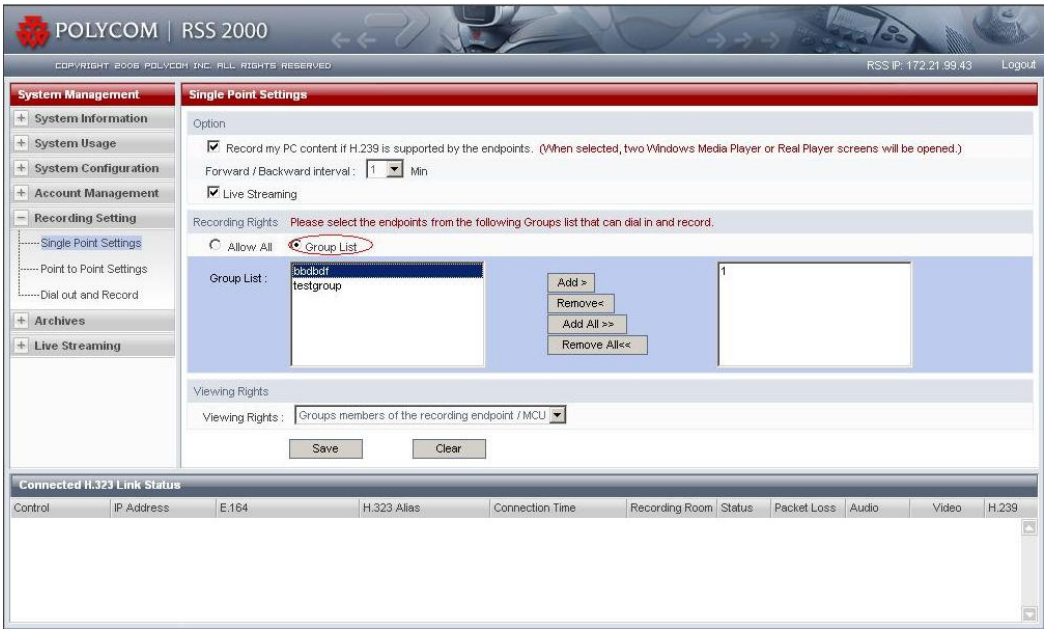

Fig. 4-40 Select user groups

To add user groups in the user group list, you can use the **Add** button and **Add All** button to add single or all user groups, or select and add multiple user groups by clicking the user groups you want while the Ctrl or Shift key is held down. Similarly, you can delete single, multiple or all user groups from the user group list.

Set Viewing Rights

This option determines whether an endpoint is allowed to play recorded archives. Three optional viewing rights levels are available: Deny all endpoints/users, Allow all endpoints/users (default), and Allow endpoints/users within user group list only, as shown in Fig. 4-41.

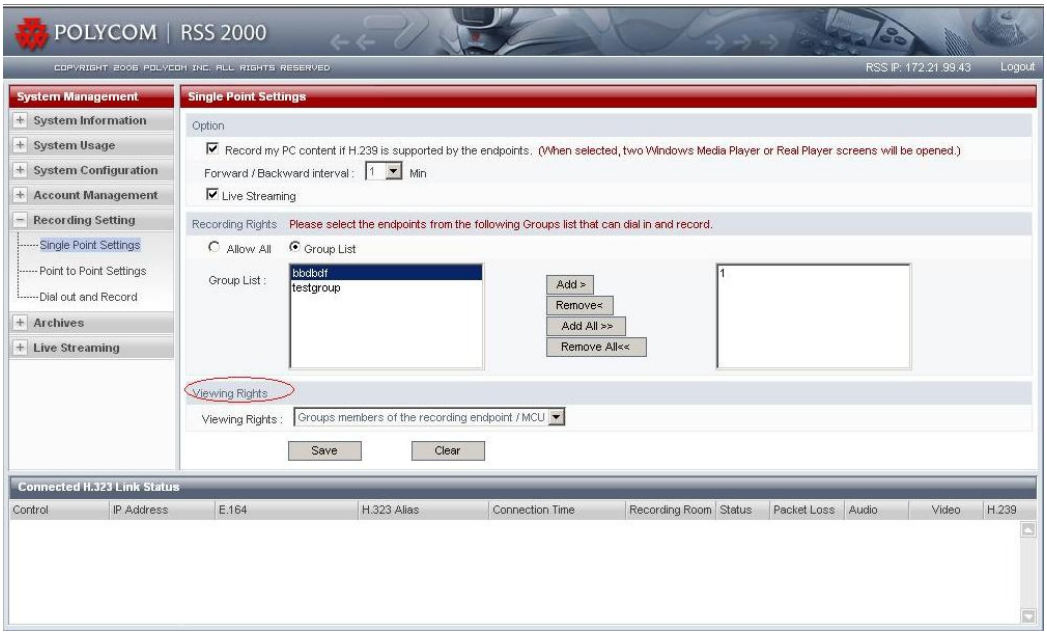

Fig. 4-41 Set viewing rights

Allow all endpoints/users: This allows all endpoints/users to play the archive generated from the ongoing single point recording.

Deny all endpoints/users: This disallows all endpoints/non-administrator users to play the archive generated from the ongoing single point recording, i.e. the archive is neither visible in the endpoint playlist nor under the Archives on the webpage.

Allow endpoints/users within user group list only: This only allows the endpoints within the user group list defined with viewing rights to view the archive. Other endpoints/users can neither play the archive at any endpoint nor find it in the archive list on the webpage.

After setting the above items, click the **Save** button to save the settings, or click **Clear** to cancel the settings you have just made on the page.

Point to Point Recording Settings

Preliminary settings of the parameters of point to point recording can be made by setting a new conference room in web pages. When endpoints calls connect the RSS 2000 to enter the conference room and start point to point recording, operations can be carried out in accordance with the predefined parameters. When deciding point to point recording settings, the following items can be set separately: the conference room's name, number, protocol to use, and rate, as well as whether to record the H.239 dual video PC screens, I frame request interval for recording, whether to record a live archive, and recording rights and viewing rights.

In the page of Settings for Point to point Recording, the following can be viewed: the name and number of the conference room, if enabling the H.239 recording has been checked, parameters such as the conference room's rate, number of participants, and status. See Figure 4-42.

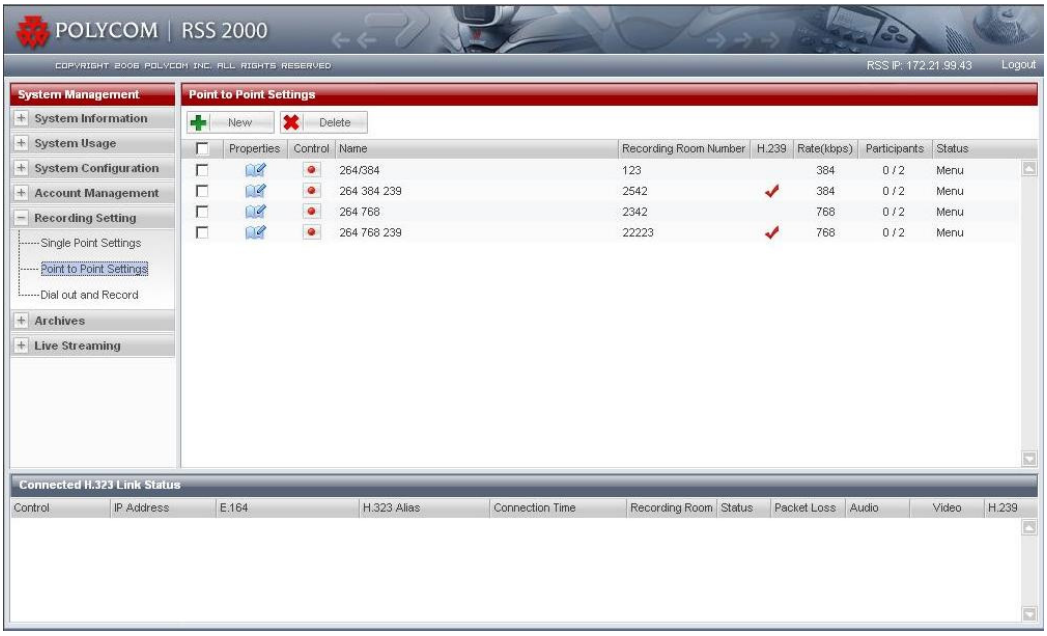

Figure 4-42 Page of Settings for Point to point Recording

The parameters of the conference room are indicated by the name, number and rate of the conference room. Checking (or not) enabling the H.239 recording indicates if two popup windows will appear when archives are played back during web playback; the current number of participants can be obtained by figures as follows: 0/2 indicates that there is nobody in the conference room currently, 1/2 shows there is one person in it, and 2/2 stands for two participants. Two statuses are available for the conference room, namely Menu, indicating that the recording has not started yet, and Running, indicating that the recording has already begun.

Setting the Basic Properties of the Conference Room

Click the **New** button in the page and skip to the page of *Add Room*, as shown in Figure 4-43.

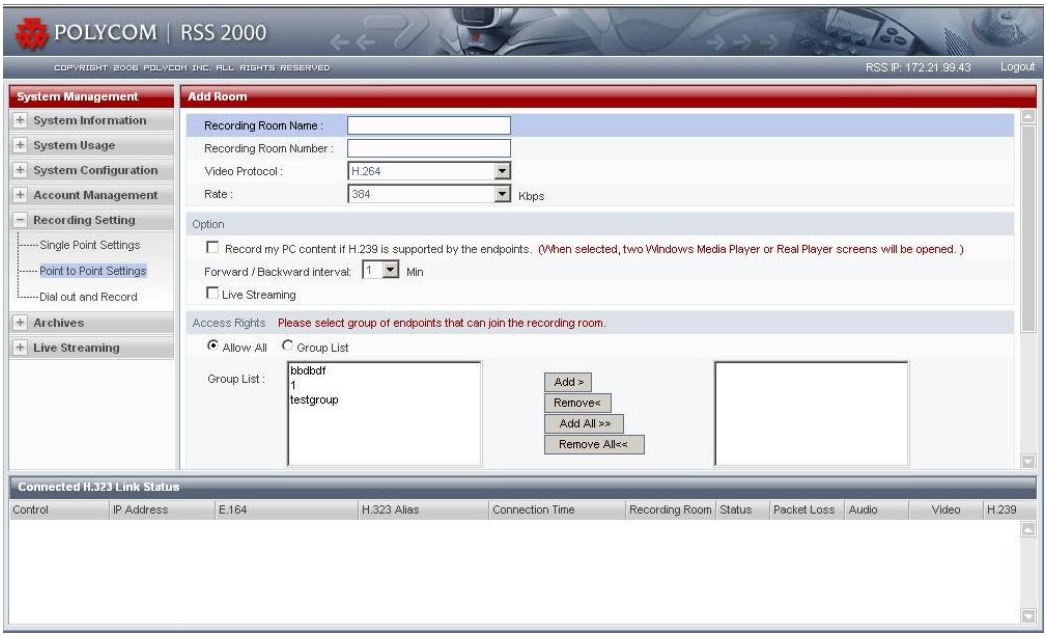

Figure 4-43 Add Conference room

In this page, basic properties such as the conference room's name, number, video protocol and rate can be set.

Name of the conference room: identifying a conference. Any characters can be entered but the length shall not exceed 32 digits.

Number of the conference room: indicating the E164 number of the conference. Digits only, and the length shall not exceed 16. When both the endpoint and the RSS 2000 have registered GK, the endpoint can then join the conference by calling RSS E.164 + the conference number.

Video protocol: defining the video protocol of the conference room and will be used by the video images sent by the RSS 2000 to the endpoint.

Rate of the conference room: deciding the rate at which the endpoint connects the conference room, with a range of 128kbps-1024kbps.

Notes:

1. **A maximum of 4 conference rooms can be added to one RSS 2000 through the web page.**
2. **The name of a conference room can be duplicate but not the numbers.**

Selection for Recording H.239 Dual Video PC Screens

Check this item, and the H.239 dual video PC screens sent by endpoints will be recorded while performing the point to point recording, with a recording rate of 1 frame per second. When playing back the recorded archives through the web, two windows will be popped up, showing the images of the main channel and the dual video PC screens, while two separate screens combined by the RSS 2000 codes are displayed in the main channel. See Figure 4-44 .The recorded dual video PC screens can support the XGA resolution.

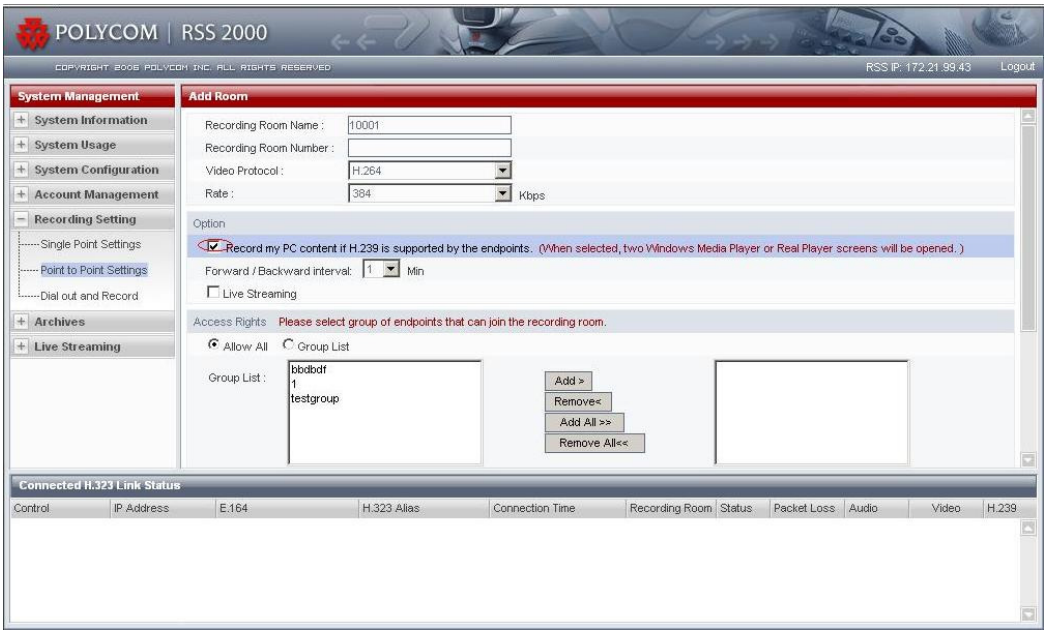

Figure 4-44 Set recording PC content

Note: **Whether the dual video PC screens can be recorded or not has nothing to do with the checking and enabling of the dual video recording option, but depends on the endpoint's ability to support the H.239.**

Setting the Interval for Requesting I Frames during Recording

In order to guarantee the quality of the playback, the RSS 2000 will request the endpoint that has joined the conference room for Iframes at a regular interval. The default interval is 1 minute per Iframe request, with a permissible range of 1-10 minutes. See Figure 4-45 . When dual video is recorded concurrently, Iframe will be requested simultaneously from the main channel video and dual video at the designed time interval.

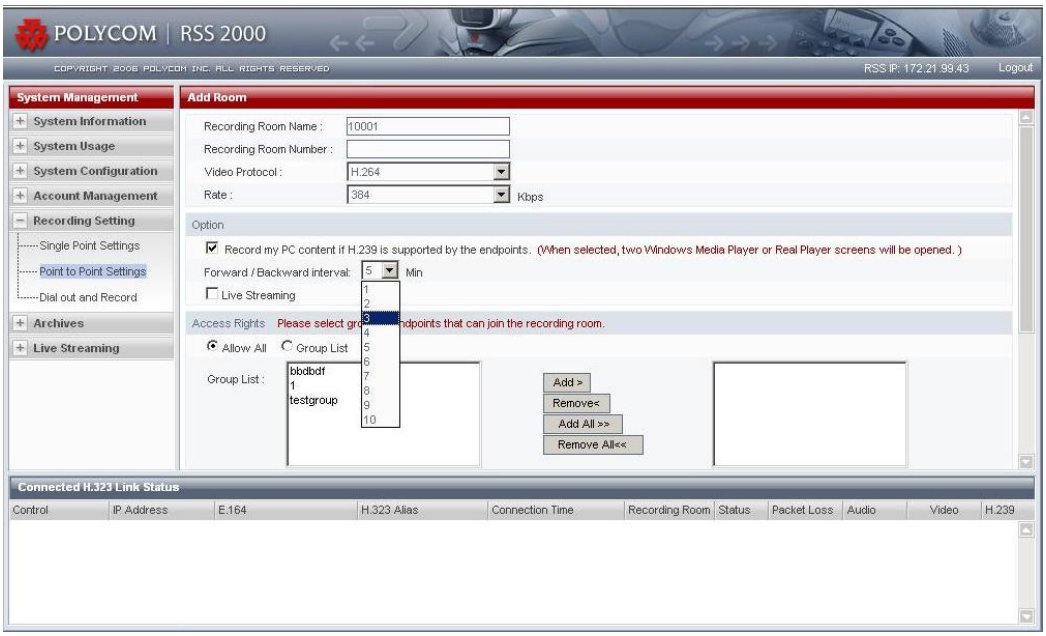

Figure 4-45 Setting I Frame Interval

Live Stream the Archive

Whether to live stream the archive during the process of point to point recording can be set by checking the option, as shown in Figure 4-46 .

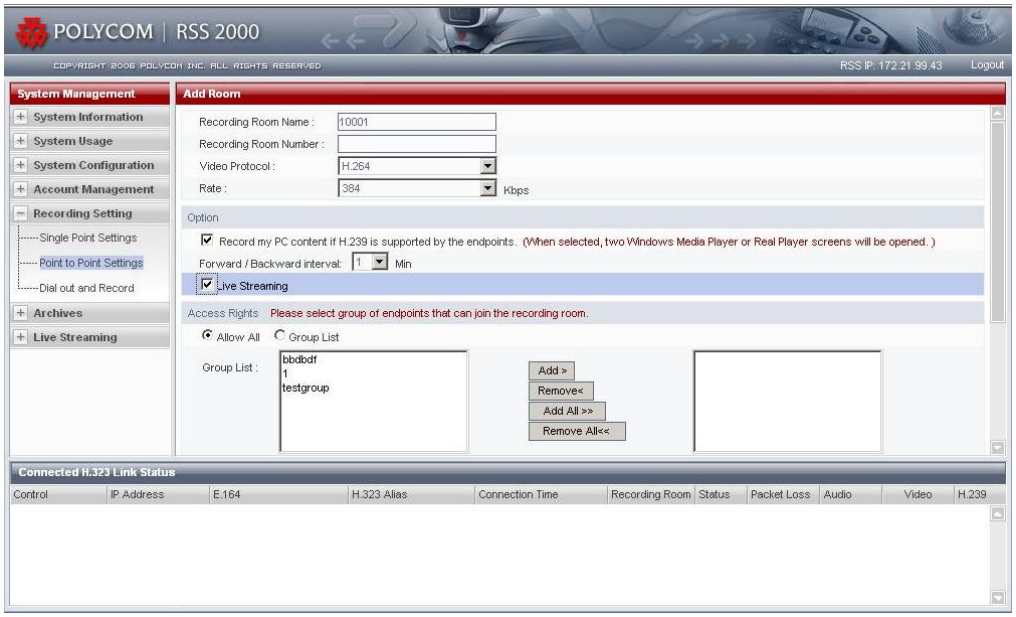

Figure 4-46 Set Live Streaming

If the option is checked, click **Live Streaming** option to see the live broadcast of the archive during the process of single point recording.

Setting of Recording Rights

This is used for setting the endpoints that can carry out point to point recording after being connected to the RSS 2000, provided that recording resources are available. Two levels of recording rights are set: allow all endpoints, and allow only the endpoints in the user group lists to record. The default setting is allowing all endpoints to record, as shown in Figure 4-47.

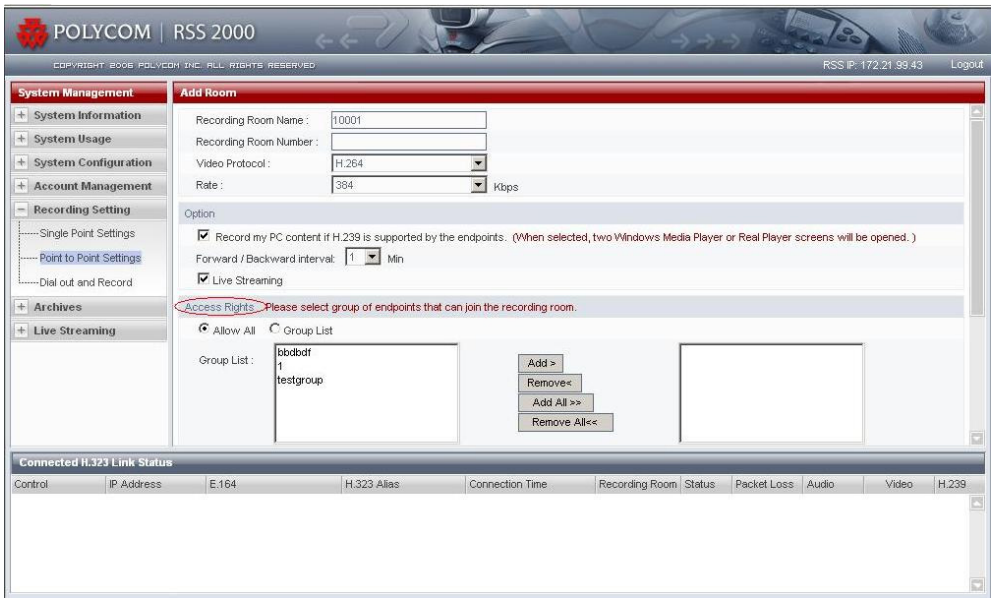

Figure 4-47 Setting Recording rights

Only the endpoint possessing recording rights can enable recording when recording resources are available. Otherwise, recording must not be initiated even if recording resources are idle. If any endpoint without recording rights attempts to initiate recording, the menu of the interface at the endpoint will not display Start Recording.

Allow all endpoints to record: after setting such a right, all endpoints connected to the RSS 2000 can start recording when recording resources are available.

Allow only the endpoints in the user group lists to record: after setting such a right, only the endpoints in selected user groups can initiate recording. This is done by selecting from existing user groups and adding them to the list that allows recording, as shown in Figure 4-48.

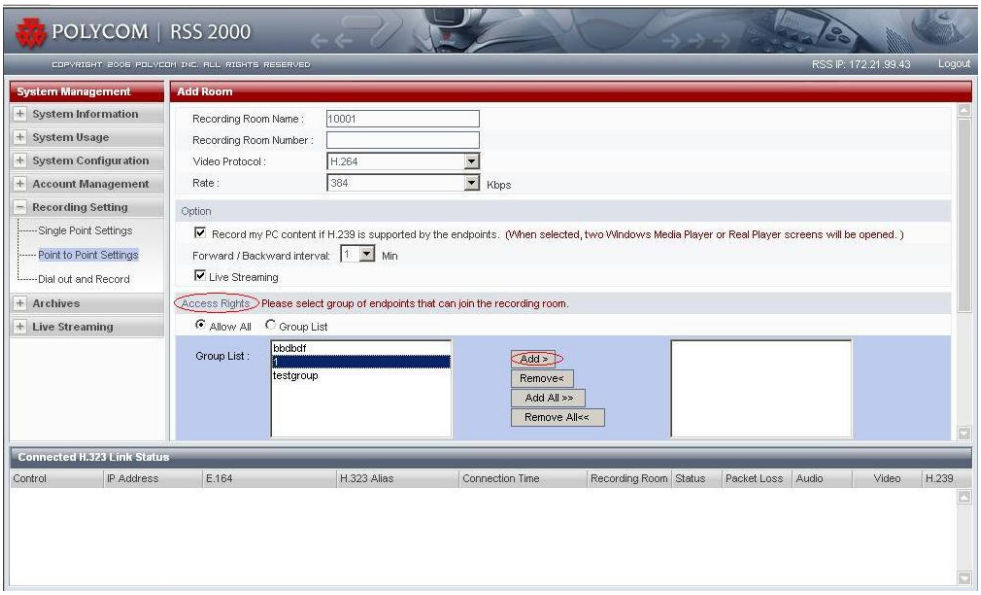

Figure 4-48 Selecting User Groups

When selecting user groups to add into the group list, click **Add** or **Add All** button to add a single user group or all user groups. Also, multiple user groups can be added by way of Ctrl + user groups and Shift + user groups. Similarly, when deleting user groups from the list, one can also delete single user group, multiple user groups, or all user groups.

Setting Viewing Rights

This is used to set if the endpoint is allowed to view the recorded archives when they are played back. Three levels of viewing rights are set: deny all endpoints and users to play back the archive; allow all endpoints and users to play back, and allow only endpoints and users in the user group list to play back. The default setting is allowing all endpoints and users to play back the archive. See Figure 4-49.

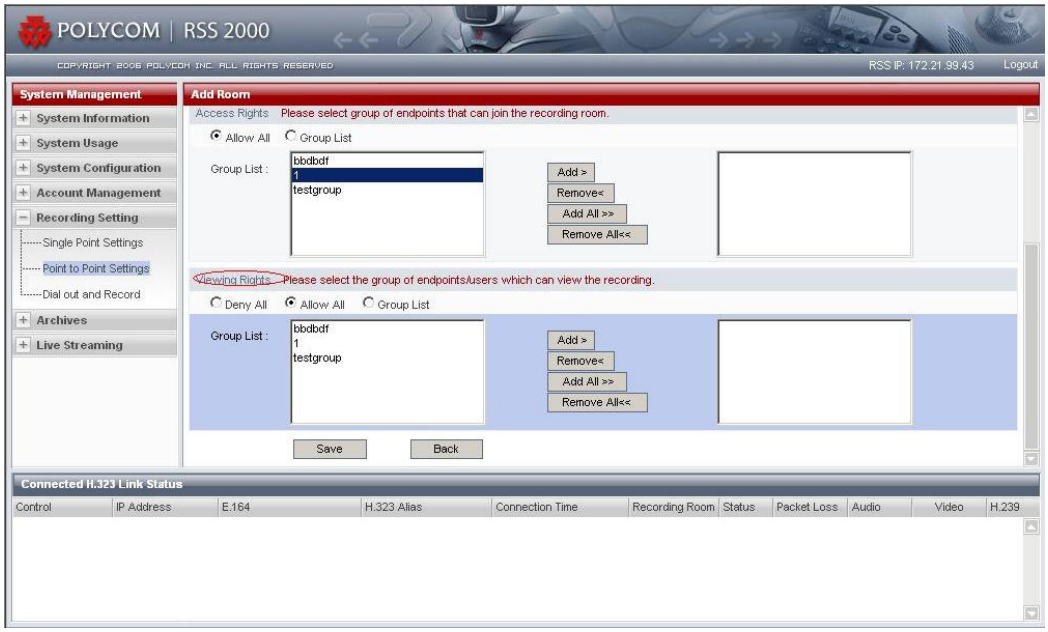

Figure 4-49 Setting Viewing Rights of Archives

Allow all to view: this indicates that the archives generated by single point recording can be played back by any endpoints and users.

Deny all to view: this indicates that the archives generated by single point recording cannot be played back by any endpoints and users who are not an administrator (i.e. the archives cannot be seen either in the playback list of the endpoint or in the Archives of the web).

Allow only the endpoints and users in user group list to view: after setting such rights, only the endpoints in selected user groups can view the archives. This is done by selecting existing user groups and adding them to the list that allows viewing, as shown in Figure 4-50.

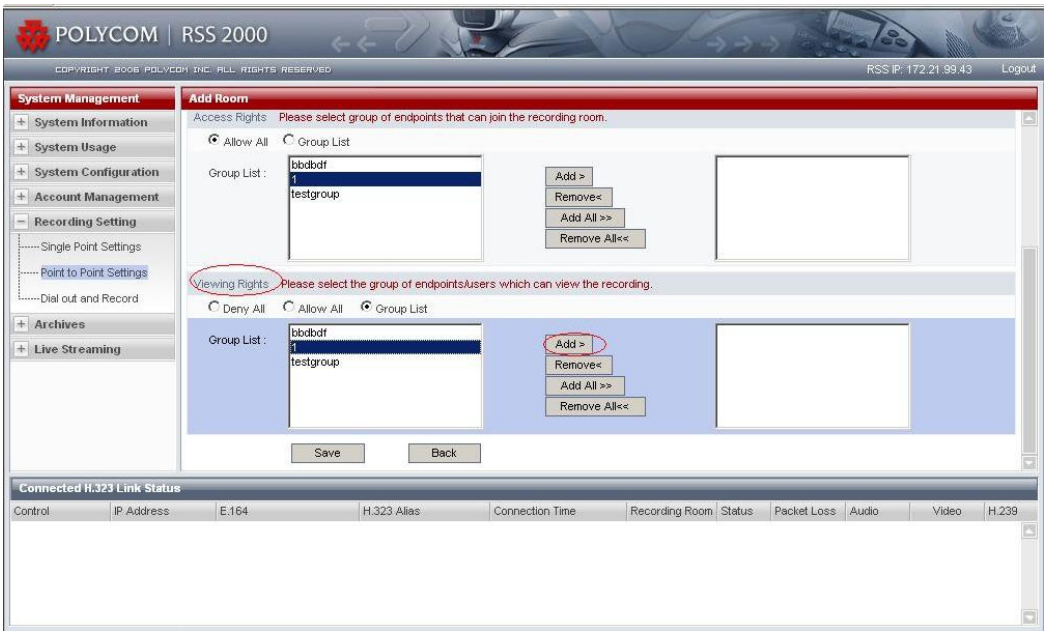

Figure 4-50 Selecting User Groups

When selecting user groups to add into the group list, click **Add** or **Add All** button to add a single user group or all user groups. Also, multiple user groups can be added by way of Ctrl + user groups and Shift + user groups. Similarly, when deleting user groups from the list, one can also delete single user group, multiple user groups, or all user groups.

After completing the above settings of user-related properties, click the Save button to save all the settings or click Back to return to the interface of Making Point to point Recording Settings.

Editing Properties of Conference Room

With regard to existing conference rooms, the properties can be modified by clicking the property icon of the conference room, as shown in Figure 4-51.

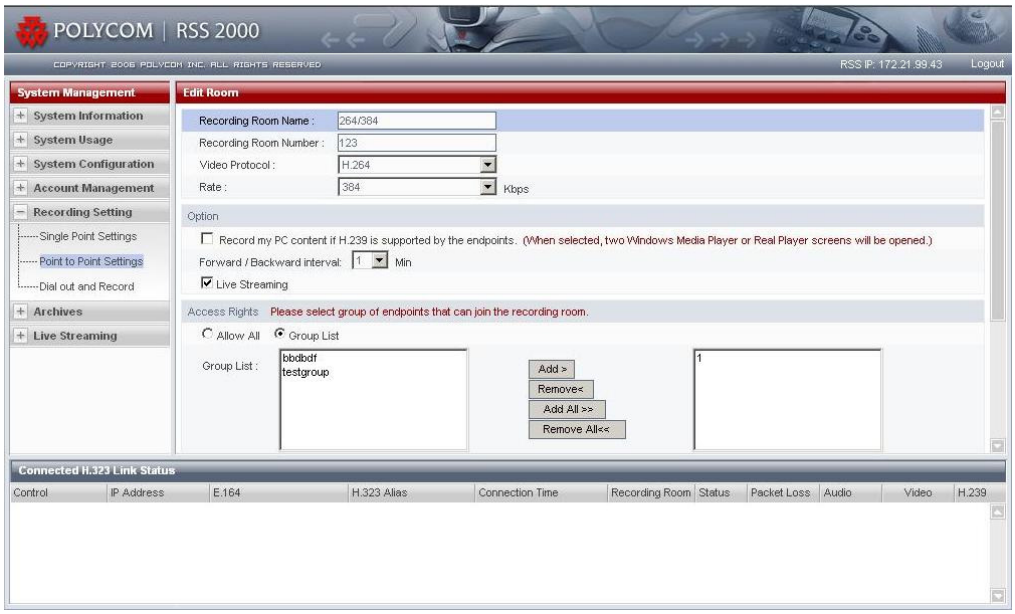

Figure 4-51 Editing Conference room Properties

In the page of editing conference room properties, the parameters of conference rooms, options, and recording and viewing rights can be modified.

Note: Property change of meeting room is not permitted during meeting room recording.

Deleting Conference Rooms

Click the **Delete** button to delete conference rooms in the page of *Making Point to point Recording Settings*. Before deletion, select conference rooms first. You may choose to delete a single, multiple or all conference rooms. See Figure 4-52.

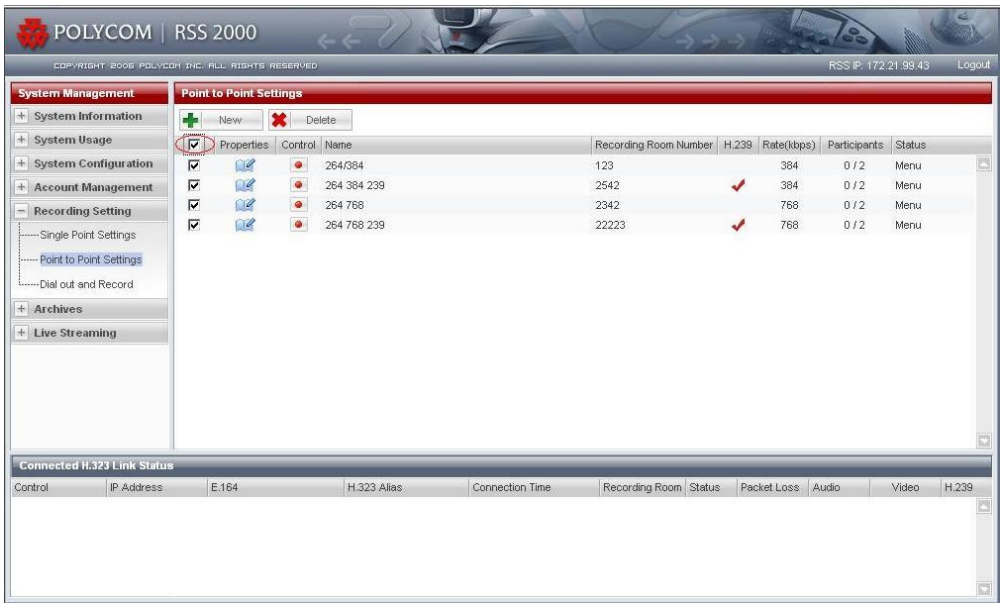

Figure 4-52 Delete All Conference rooms

After the user groups are selected for deletion, click **Delete** button, and a dialog box will pop up asking for confirmation of the deletion of the selected conference room. Choose **OK** to delete and Cancel to call off the deletion.

Note: **the first checkbox under the ADD button of the page of Making the Point to point Recording Settings means to Select All. Select this checkbox can check all user groups.**

Control point to point recording

Build connection between the endpoint and RSS 2000. Then enter the meeting room and click the red button in the "control" list which is relative to the meeting room. After that the users could start point to point recording. See figure 4－53.

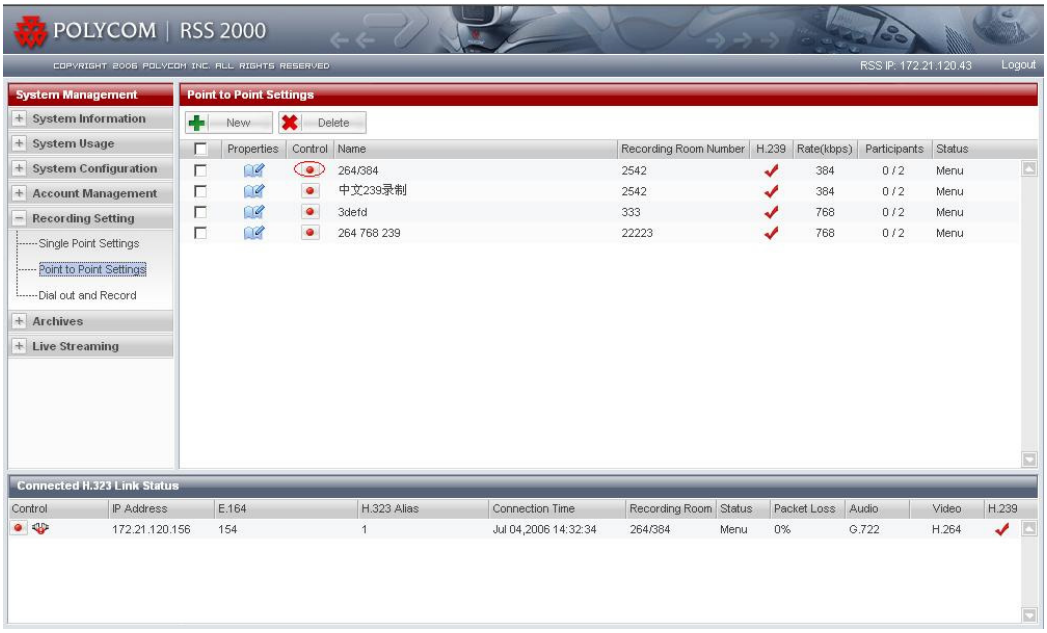

Figure 4－53 Start point to point recording through web controlling

After clicking the red button, if resource is available point to point recording starts in the meeting room. At the same time the control button changes as Figure 4－54 shows.

Figure 4－54 Button status during the process of point to point recording

To pause the recording, click the left button. Simultaneously the button changes as Figure 4－54 shows.

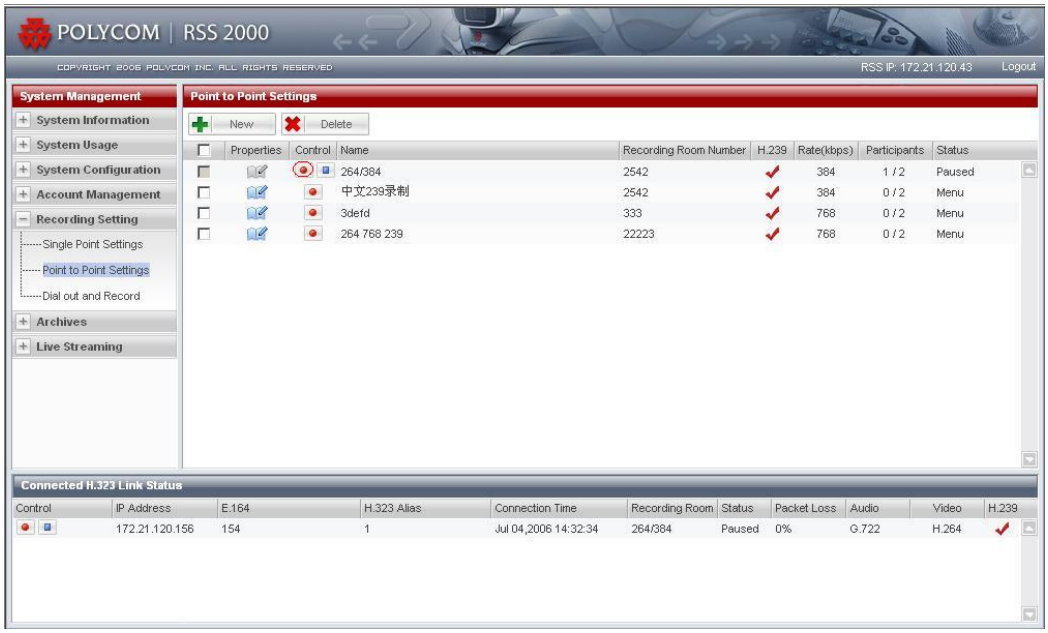

Figure 4－55 Button status when pause point to point recording

Click the left button again to resume the recording.

Clicking the right button will pause the recording at any time during recording.

Dial out and Record through Web

Click **Dial out and Record** in the function tree on the left of the web page to make a call and initiate recording, as shown in Figure 4-53 .

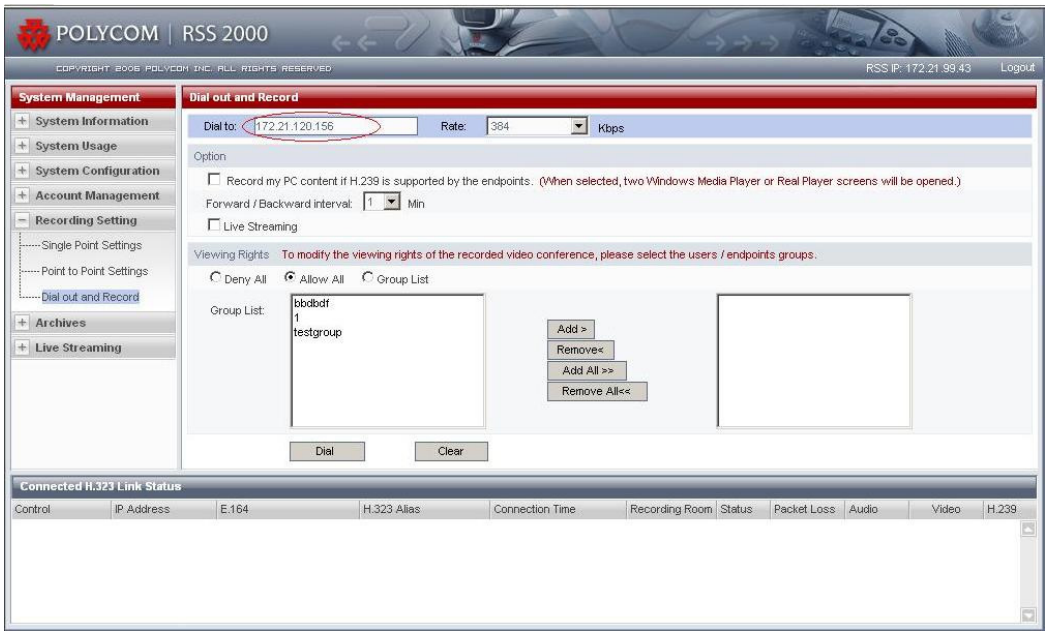

Figure 4-53 Make Calls through Web

Enter the IP address for the endpoint to call in the URL field, choose a calling bandwidth, and then click the **Dial** button at the bottom of the page to make a call with a rate of 128kbps-1920kbps. After a call is made, RSS 2000 will negotiate capacity with the called site to build a connection in accordance with the negotiated audio/video protocol.

Note:

1. After the connection is established through web calling, RSS 2000 will initiate recording directly, without the need of any more selective settings for the endpoint, if recording resources are available.

2. After the connection is established through web calling, if there no recording resources are available for the RSS 2000 at the time, it will be disconnected after 10 seconds.

Selection to Record H.239 Duel Video PC Images

If this option is checked, H.239 duel video PC images sent by the endpoint will be recorded when recording is initiated through web. The rate to record PC image content will be 1 frame/second. When playing back the recorded archives through web, two windows will pop up showing main channel images and duel video PC images respectively. See Figure 4-54. The recorded duel video PC images support a resolution of XGA.

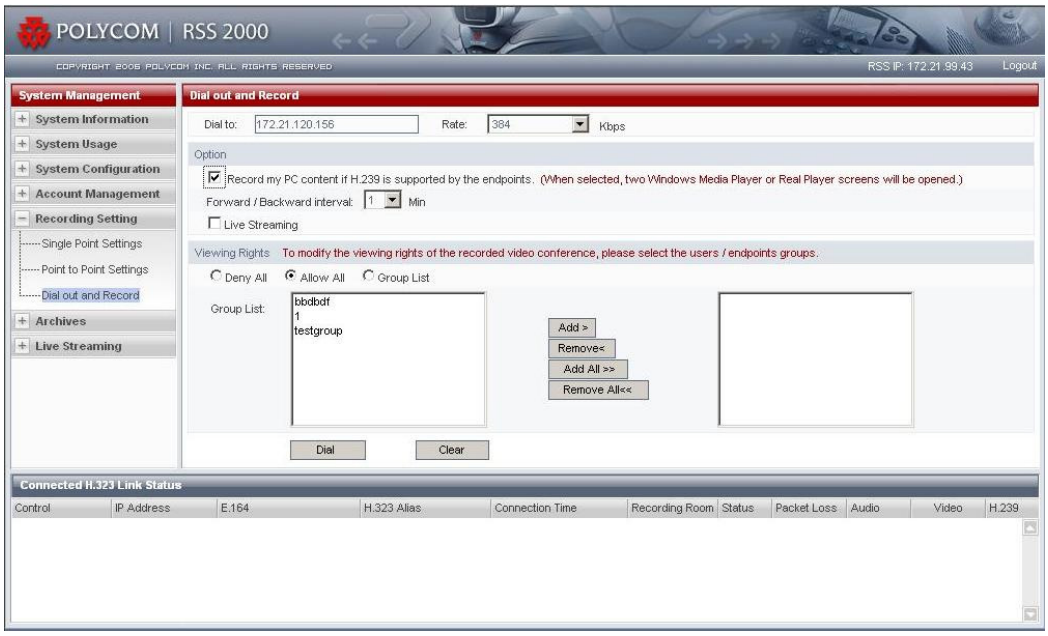

Figure 4-54 Set Recording PC content

Note: Whether duel video PC images will be recorded is not related to whether duel video recording is checked here, but to whether H.239 is supported by an endpoint.

Setting the Interval for Requesting I Frames during Recording

In order to guarantee the quality of the playback, the RSS 2000 will ask the endpoint for I frame at a regular interval. The default time interval is requesting I frames every minute, with a permissible range of 1-10 minutes. See Figure 4-55.

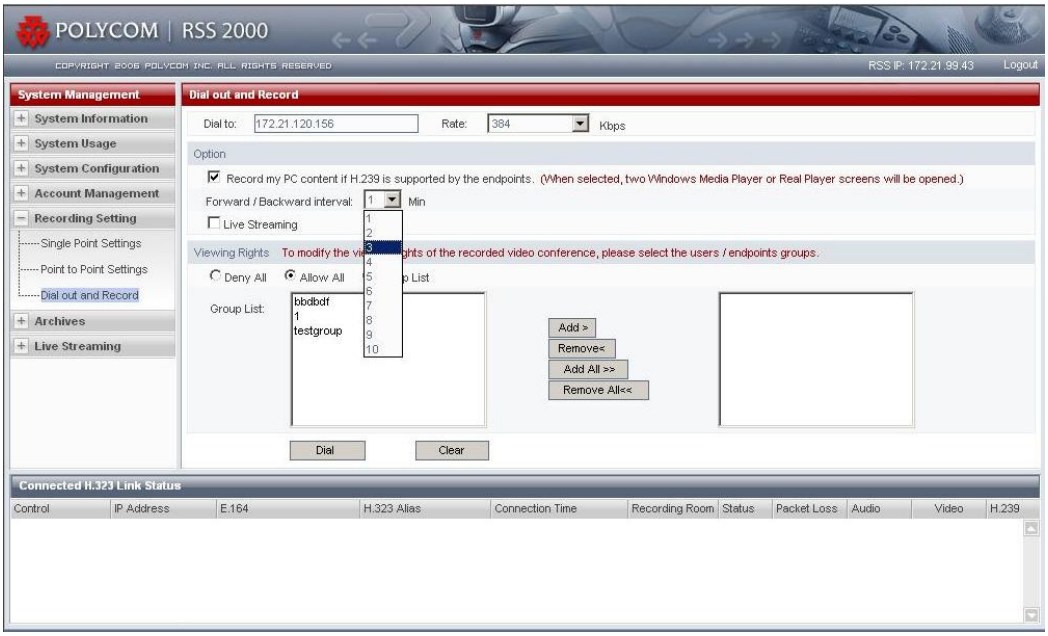

Figure 4-55 Setting I Frame Interval

When dual video is recorded concurrently, I frames will be requested simultaneously from the main channel video and dual video at the designed time interval.

Live Stream the Archive

Whether to live stream the archive during the process of web dialing out and recording can be set by checking the option, as shown in Figure 4-56.

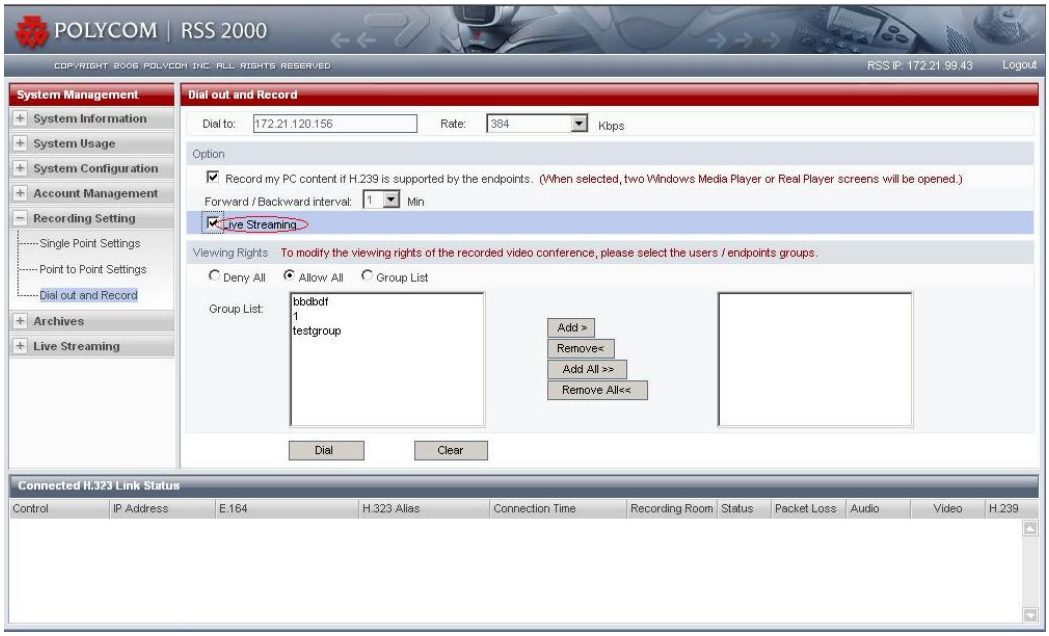

Figure 4-56 Set Live Broadcast

If the option is checked, click Live Streaming option to see the live broadcast of the archive during the process of single point recording.

Setting of Viewing Rights

This is used to set if during the play-back the endpoint is allowed to view the archives recorded with web dialing and recording. Three levels of viewing rights are set: deny all endpoints and users to play back the archive; allow all endpoints and users to play back, and allow only endpoints and users in the user group list to play back. The default setting is allowing all endpoints and users to play back the archive, see Figure 4-57.

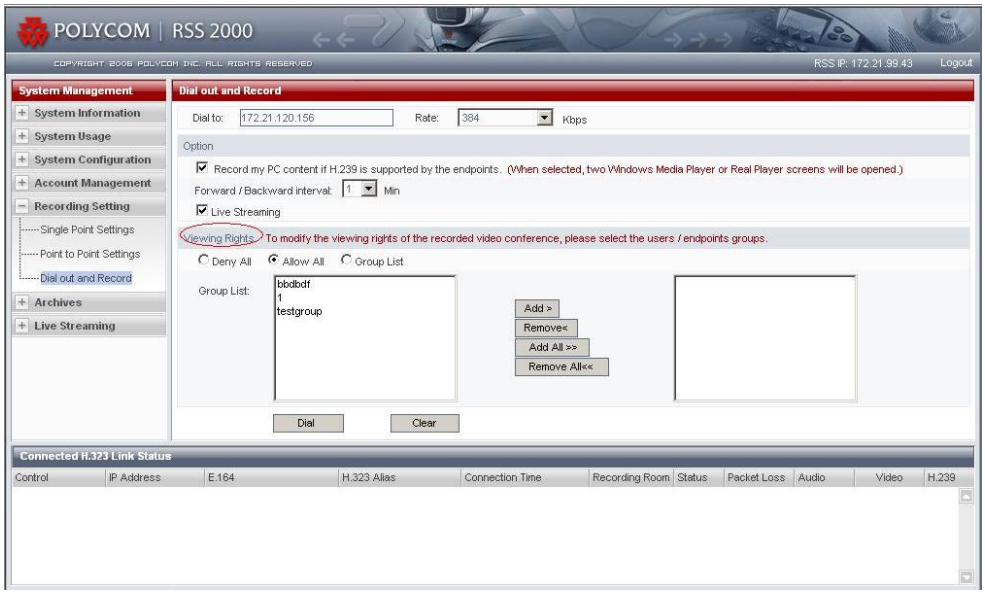

Figure 4-57 Setting Viewing Rights of Archives

Allow all to view: this indicates that the archives generated by single point recording can be played back by any endpoints and users.

Deny all to view: this indicates that the archives generated by single point recording cannot be played back by any endpoints and users who are not an administrator (i.e. the archives cannot be seen either in the playback list of the endpoint or in the Archives of the web).

Allow only the endpoints and users in user group list to view: after setting such a rights, only the endpoints in selected user groups can view the archives. This is done by selecting existing user groups and adding them to the list that allows viewing, as shown in Figure 4-58.

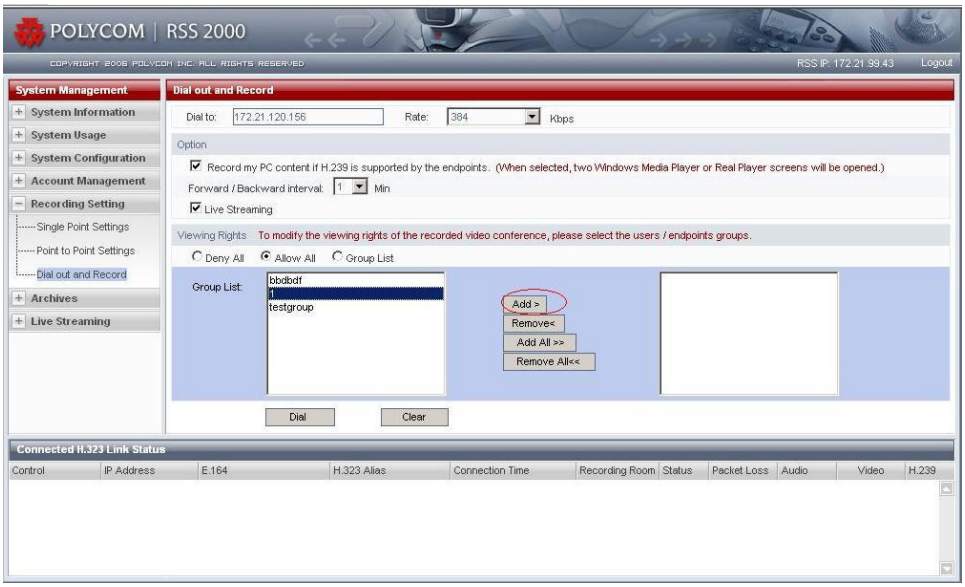

Figure 4-58 Selecting User Groups

When selecting user groups to add into the group list, click **Add** or **Add All** button to add a single user group or all user groups. Also, multiple user groups can be added by way of Ctrl + user groups and Shift + user groups. Similarly, when deleting user groups from the list, one can also delete single user group, multiple user groups, or all user groups.

After completing the above settings of user-related properties, click **Dial** to initiate the call or click Clear to cancel the settings just made.

Management of Recorded Files

By clicking the **Archives** button in the function tree on the left of a web page, one can view the status of recorded archives, make VOD request, modify the properties of archives, or delete the archives. See Figure 4-59.

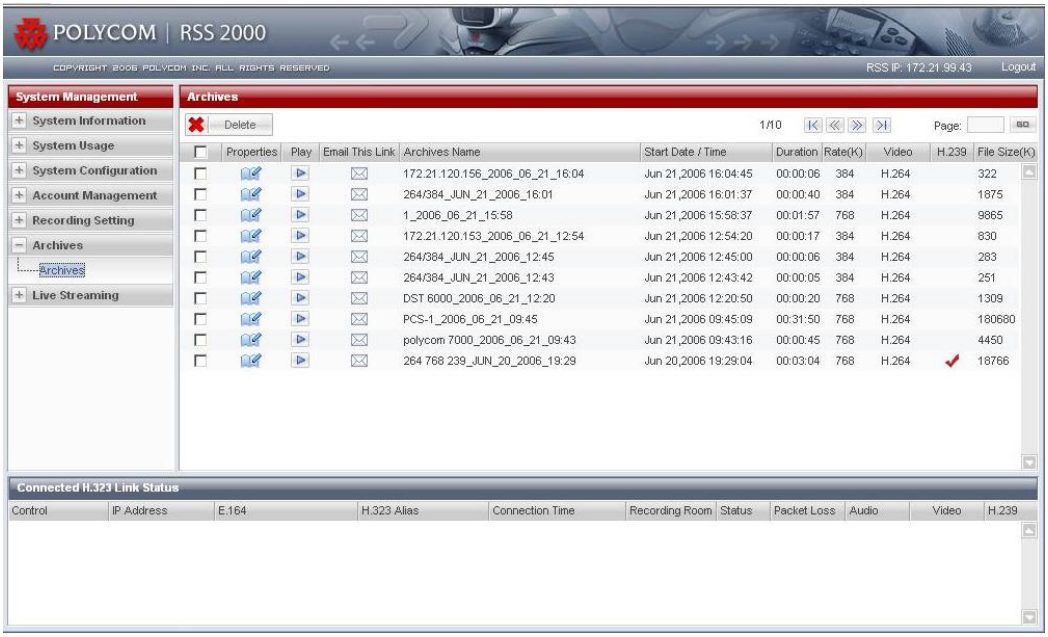

Figure 4-59 View Archives List

View Archive Properties

All archives that can be seen by current users are displayed in Figure 4-59 along with and their properties, including archive name, archive start time, archive recording rate, video protocol used for archive recording, whether H.239 duel video recording is enabled, and size of file.

Archive Name: by default, the name of the archive generated by recording follows the naming convention of "Endpoint H.323 name (conference name) + record time". Archive names can be edited and modified after recording.

Archive Start Time: the system time of RSS 2000 when recording starts shall be used as archive start time.

Archive Recording Rate: call-to-connect rate between an endpoint and RSS 2000 when a archive is recorded. Unit: KBPS.

Video Protocol Used for Archive Recording: the video protocol used for calling connection when the archive is recorded.

Whether H.239 Duel video Is Enabled: whether H.239 duel video is set to be enabled when recording the archive.

Size of Recorded File: size of the archive. Unit: KB.

Modify Archive Properties

Click the *archive property* icon on the archive list web page to modify archive properties. See Figure 4-60. The modifiable items include: archive name, archive description, viewing rights, personal code setting and whether to allow the deletion of the archive.

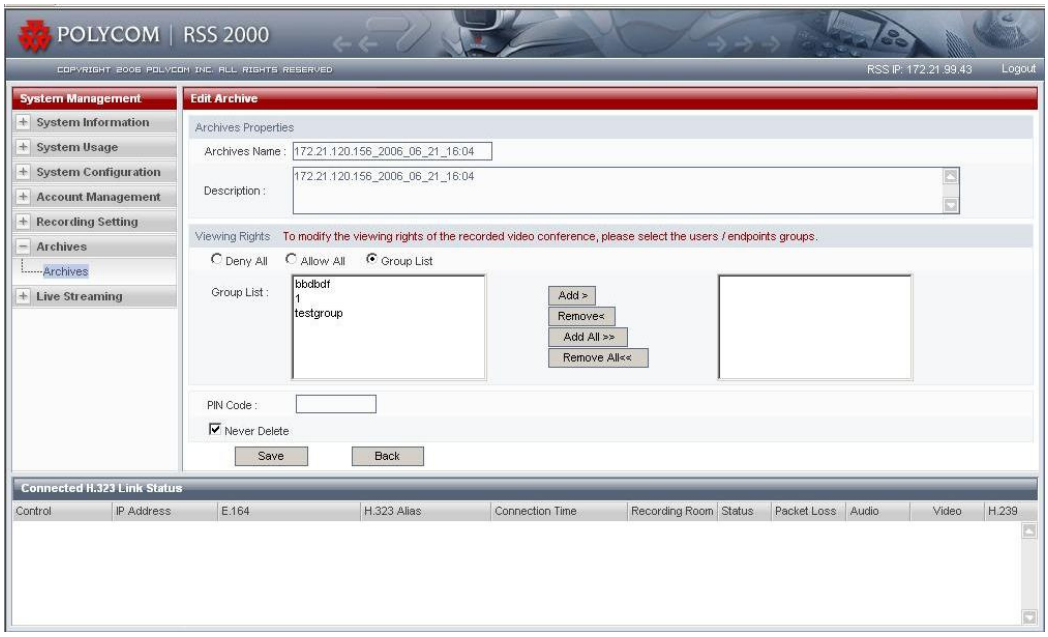

Figure 4-60 Modify Archive Properties

Archive Name: Any characters can be entered but the length shall not exceed 48 digits.

Archive Description: Any characters can be entered but the length shall not exceed 128 digits.

Viewing Rights: to set and modify the viewing rights when playing the archive. Three levels of viewing rights are set: deny all endpoints and users to play back the archive; allow all endpoints and users to play back, and allow only endpoints and users in the user group list to play back. The default setting is allowing all endpoints and users to play back the archive. See Figure 4-61 .

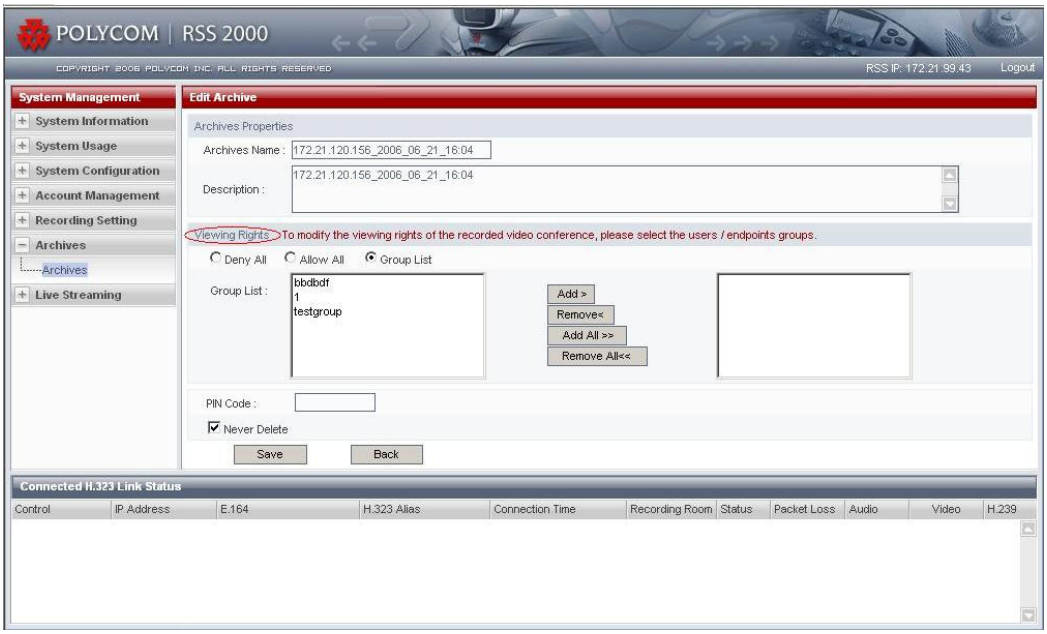

Figure 4-61 (Setting Viewing Rights of Archives).

Allow all to view: this indicates that the archives can be played back by any endpoints and users.

Deny all to view: this indicates that the archives cannot be played back by any endpoints and users who are not an administrator (i.e. the archives cannot be viewed by any endpoints or non-administrator users).

Allow only the endpoints and users in user group list to view: these rights can be edited to redefine the user groups which are allowed. Redefine the user groups by selecting from the existing user group and adding to the group list that have recording rights, as is shown in Figure 4-62.

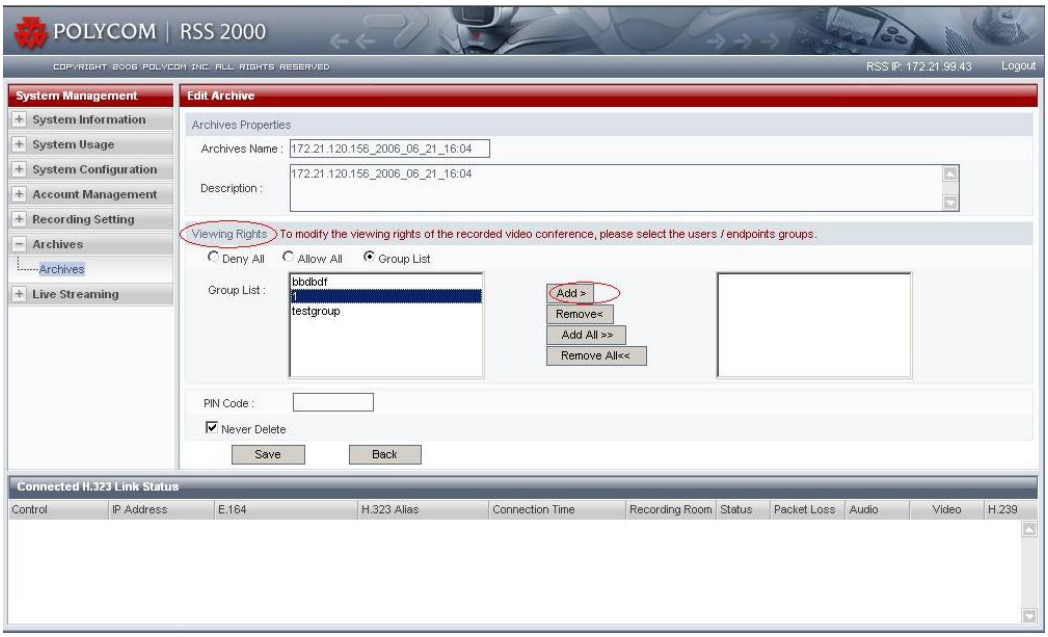

Figure 4-62 Selecting User Group

When selecting user groups to add into the group list, click **Add** or **Add All** button to add a single user group or all user groups. Also, multiple user groups can be added by way of Ctrl + user groups and Shift + user groups. Similarly, when deleting user groups from the list, one can also delete single user group, multiple user groups, or all user groups.

After completing the settings, click **Save** button to save all the modifications, and then click the **Back** button to return to the archive interface.

Request an Archive

In the archive list, select the archive to view and click the *Play* icon to play automatically with Windows Media player. See Figure 4-63.

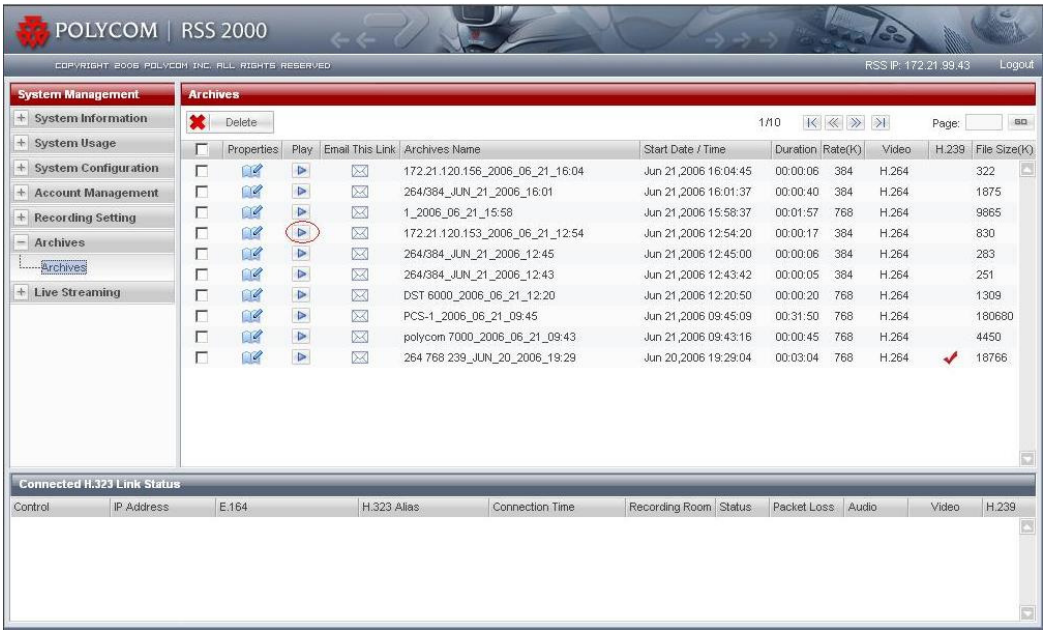

Figure 4-63 Playing An Archive

Notes:

1. During the requesting process, skip forward and skip backward by dragging the slide are not supported. Only archive volume can be regulated.

2. Selecting the archive and right clicking to download for local viewing is not supported.

3. If re-selecting another archive for viewing during the requesting process, the current archive will stop immediately.

Download archives to local PC

Select the objective archive, click **Download** button and then select the saving path. The archive could be downloaded to local PC. See figure 4－67.

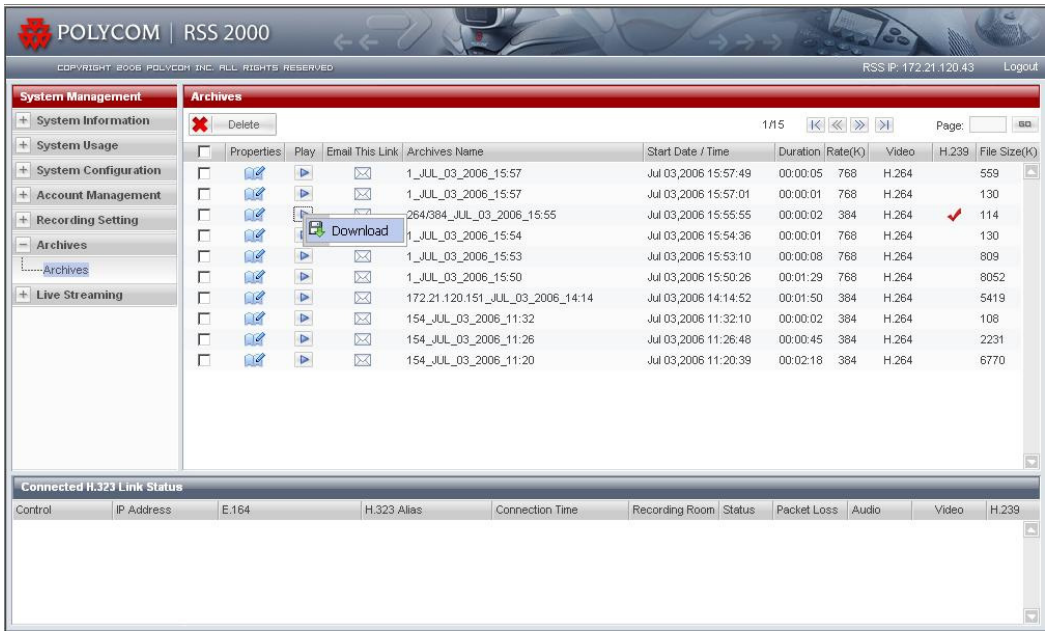

Figure 4—67 Download archives to local PC

E-mail Invitation to View the Archive

Click the *e-mail this link* icon to auto open the default mail system and send the link of the archive as the text content of the e-mail, as is shown in Figure 4-64.

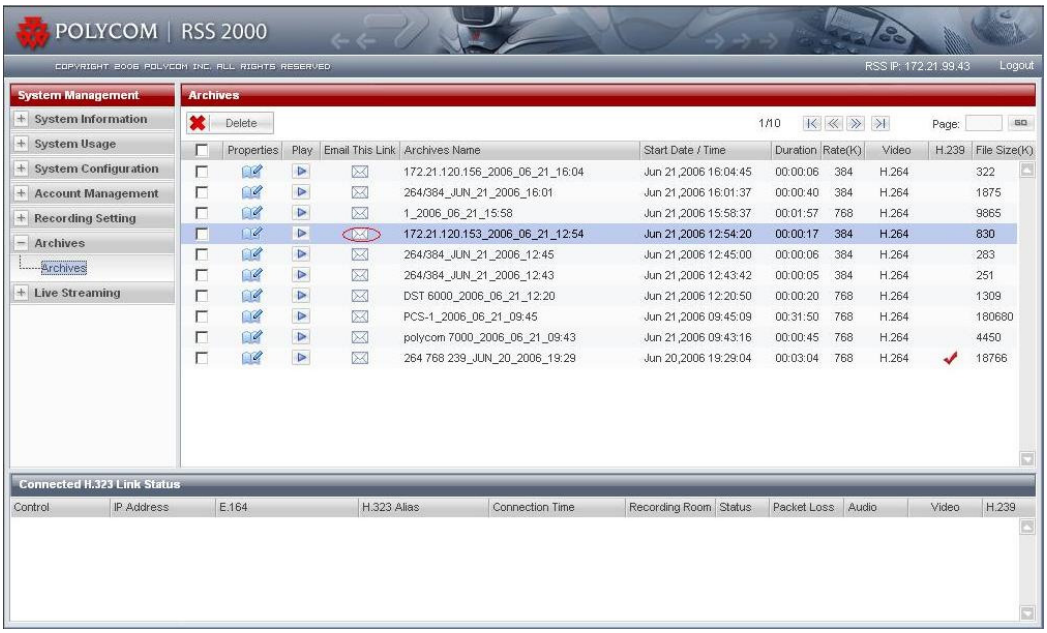

Figure 4-64 E-mail Invitation to View the Archive

Simply fill out the recipient's address before sending. The default file title is "You are invited to view this archive". Upon receiving the e-mail letter, the recipient can view the archive by directly clicking the link in the mail text, provided that his network can establish communication with RSS.

Note: **The link in the mail text only allows you to play the archive, not giving you access to visit any higher level directories.**

Delete the Recorded Files

Click the "delete" key to delete archives in the archive list. Select the archives before deleting. You can delete single archive, a group of archives or delete all. See Figure 4-65.

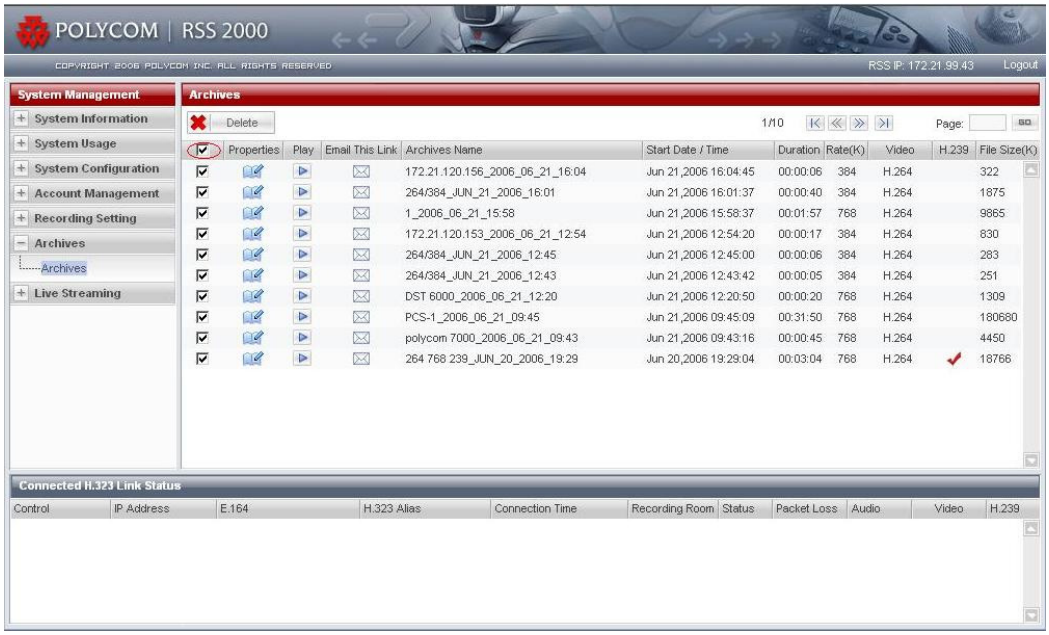

Figure 4-65 Select to Delete All

After selecting the archives to be deleted, click the "delete" key, and a dialog box will pop out prompting you to confirm the deletion of the endpoint. Select "OK" to delete the endpoint, or "cancel" to call off the deletion operation.

Note: **The first box under the "ADD" button of the archive page is "Select All". Check the box to select all endpoints.**

Go to Archive Pages

The total number of pages and the current page number can be displayed at the upper-right corner of the archive listing webpage.

The button to the right of the page number is for page turning, as is shown in Figure 4-66.

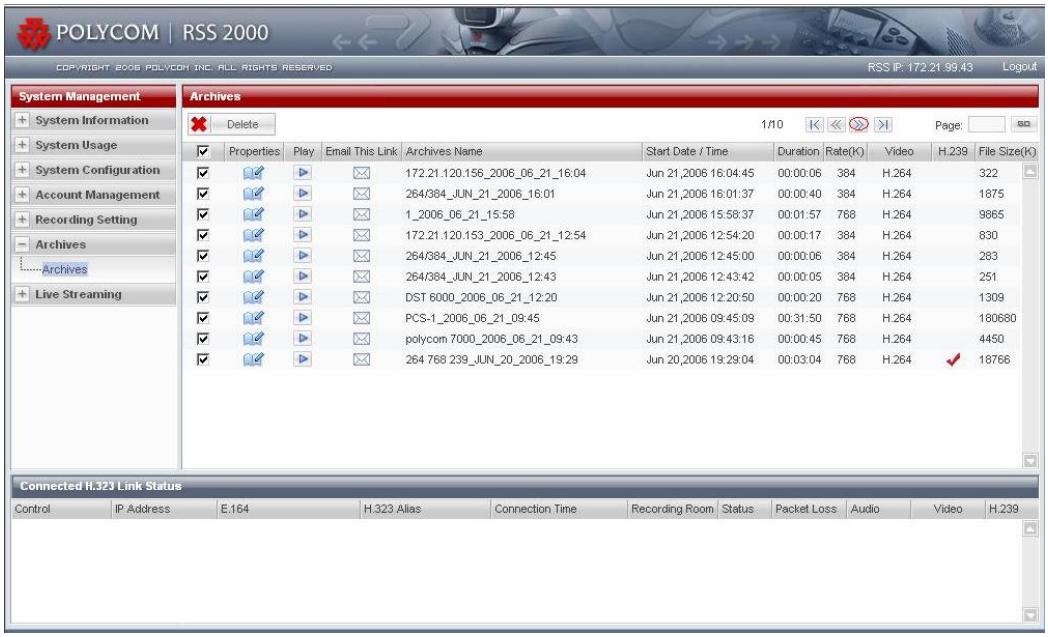

Figure 4-66 Button for Page Turning

The leftmost and rightmost buttons are for going to the first page and the last page respectively, while the two middle buttons are for going to the previous page and the next page. Enter the page number you want to go to in the space to the right of Go To and click the "go" button will bring you to the corresponding page. See Figure 4-67.

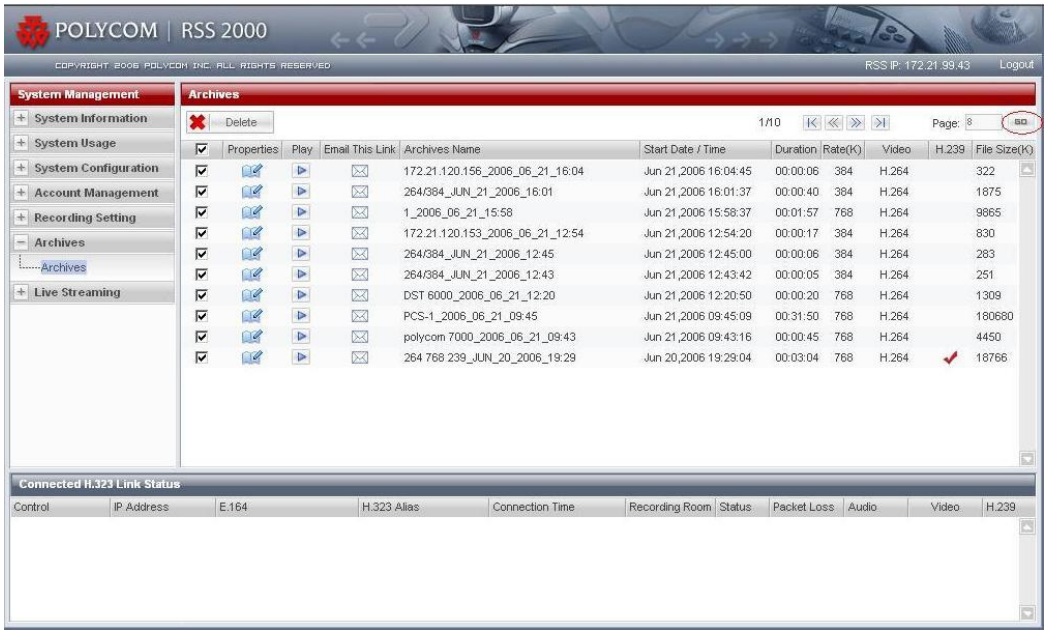

Figure 4-67 Go to other pages

Display the H.323 Link Status

The recording status of the endpoints linked to the RSS 2000 call can be displayed in real-time at the bottom of the Web page, as is shown in Figure 4-68. The H.323 link status connection can control the recording and the status display of the link.

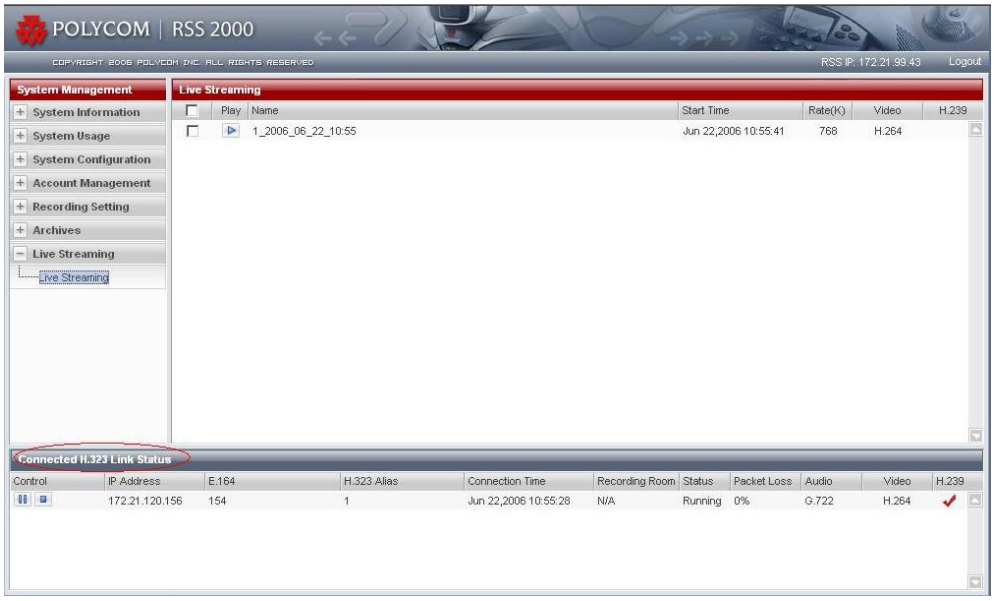

Figure 4-68 H.323 Link Status

Recording control can be made to the H.323 link through the control button. After establishing the connection, the control buttons are as shown in Figure 4-69.

Figure 4-69 the status of the H.323 link control buttons after establishing the connection

Click the left button to start a single point recording, when the button icon is as shown in Figure 4-70.

Figure 4-70 the status of buttons when recording is started

Click the left button again to pause/resume the recording, as is shown in Figure 4－71 .

Figure 4－71 recording paused

Click the right button to stop the recording, as is shown in Figure 4-72 recording stopped.

Figure 4-72 recording stopped

Continuing to click the right button shall disconnect the H.323 link, as is shown in Figure 4-73.

4-73 disconnect the link

Each H.323 link status display includes the following: the IP address of the H.323 endpoint connected to the RSS 2000, H.323 alias, connection time, conference room entered, recording status, packet loss, audio/video protocol and whether it is H.239-enabled. There are three types of recording status display: "menu" indicating that the recording and playing has not started; "playing" indicating playing-back is under progress, and "running" indicating recording is under progress. Packet loss rate shows the statistics of packet losses on the upward link from the endpoint to the RSS 2000, counted every 5 seconds.

Notes:

1. *Whether H.239 is Enabled* displayed here does not indicate whether H.239 dual video is being recorded or played, but simply whether the endpoint has H.239 ability to send H.239 dual video.

2. The refreshing frequency of the H.323 link status display is every 30 seconds.